

الشرق الأوسط

FINANCIAL TIMES

EUROPE'S BUSINESS NEWSPAPER

Monday October 21 1985

Japan strains to encourage foreign imports, Page 4

D 8523 B

Active ...	Sch. 18	Intest. ...	Ry 2800	Portugal ...	Ex 60
Belgium ...	Da 0.950	Italy ...	1.1300	S. Africa ...	Rh 6.00
Canada ...	87.42	Japan ...	1550	Singapore ...	Rs 4.10
Denmark ...	251.50	Jordan ...	Ps 0.500	Spain ...	Pta 110
France ...	170.50	Korea ...	W 200	Switzerland ...	Sfr 30
Germany ...	107.76	Latvia ...	Lat 2.000	Taiwan ...	Twd 30
Greece ...	1.100	Luxembourg ...	Lfr 42	Sweden ...	Skr 5.50
Holland ...	170.50	Malaysia ...	Ms 4.25	Switzerland ...	Sfr 30
India ...	Rs 15	Mexico ...	Ps 300	Turkey ...	Lira 1.210
Italy ...	1.1300	Norway ...	Nkr 6.000	U.S.A. ...	Dn 9.50
Japan ...	1550	Philippines ...	Ph 20	U.S.A. ...	Dn 9.50
South Africa ...	Rh 6.00	Poland ...	Pl 100	U.S.A. ...	Dn 9.50
Spain ...	Pta 110	Portugal ...	Ex 60	U.S.A. ...	Dn 9.50
Sweden ...	Skr 5.50	Switzerland ...	Sfr 30	U.S.A. ...	Dn 9.50
Switzerland ...	Sfr 30	Taiwan ...	Twd 30	U.S.A. ...	Dn 9.50
Taiwan ...	Twd 30	U.S.A. ...	Dn 9.50	U.S.A. ...	Dn 9.50
U.S.A. ...	Dn 9.50	U.S.A. ...	Dn 9.50	U.S.A. ...	Dn 9.50
U.S.A. ...	Dn 9.50	U.S.A. ...	Dn 9.50	U.S.A. ...	Dn 9.50

No. 29,758

World news

Business summary

Three shot dead at S. African funeral

Three mourners at the funeral of a 12-year-old boy in a black township near Pretoria were killed when South African police fired at the crowd.

However, there were no problems at another funeral - this one for three coloured youths killed in the Cape peninsula by police who hid in a decoy lorry.

Meanwhile, the house of a white former rugby star who has supported multi-racial sport was destroyed by fire in Port Elizabeth. Page 3

Typhoon kills 54

At least 54 people were killed when Typhoon Dot struck the Philippines. Gusts reaching 150mph demolished houses and caused mud slides and flash floods.

95 police injured

Japanese demonstrators protesting against plans to build a second runway at Tokyo's Narita airport fought with police, injuring 95 officers. At least 240 protesters were arrested.

Afghan-Soviet swap

Afghan guerrillas claim they exchanged two Soviet soldiers for six imprisoned rebels on August 24 - the first swap involving Soviet troops.

Uganda peace 'close'

Kenyan President Daniel arap Moi, who is heading talks between Ugandan rebels and the Kampala Government, said he hopes this week's talks will bring peace to Uganda after 20 years of violence.

India opens N-plant

India began operating an experimental fast breeder nuclear reactor at Kalpakkam near Madras. Only the U.S. and a few European countries have such reactors.

17 killed in Sri Lanka

At least 17 people, including 11 Tamil separatist guerrillas, were killed in ethnic violence in Sri Lanka's northern and eastern provinces during the weekend.

Korean boat sunk

The South Korean Navy says it sank a North Korean boat that was allegedly spying off the port of Pusan.

Law court bombed

A bomb exploded in Luxembourg's justice building, damaging an office but causing no injuries. Police have reported 11 bomb attacks in Luxembourg this year.

Luggage bomb study

A U.S. Congressional committee urged the Federal Aviation Administration to speed up efforts to develop equipment to detect explosives in luggage. The FAA said it would take more than two years to develop better devices.

New UK coal union

The new Union of Democratic Mineworkers in Britain will begin a nationwide campaign to replace the National Union of Mineworkers, which it defeated in regional elections in Nottinghamshire and South Derbyshire. Page 6

British hold trawler

The British Royal Navy has detained a Spanish trawler off the coast of Scotland and charged its captain with fishing illegally in British waters.

Arms deal opposed

Israeli Prime Minister Shimon Peres said proposed U.S. arms sale to Jordan would be unacceptable to his government even if Congress reduced the scope and speed of the weapons delivery.

Sackings revoked

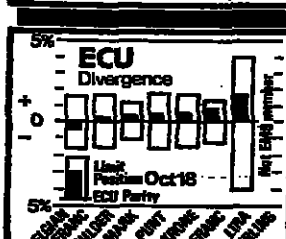
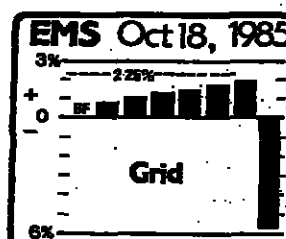
Liverpool City Council leaders agreed to withdraw dismissal notices that were issued last month to 31,000 employees because of the city's budgetary crisis. Page 6

Elders poised to bid for Allied

ELDERS IXL, Australian brewing, agricultural services and trading group, is expected to launch Britain's biggest ever takeover bid today with a £1.75bn (\$2.47bn) offer for Allied-Lyons, the food and drinks conglomerate. There were doubts last night whether Elders, with a market valuation of about a quarter that of Allied, had succeeded in its six-week search for international partners to join in the bid. Page 20

EUROPEAN Monetary System

Most currencies were stronger from the previous week, reflecting con-



tinued dollar weakness. Disappointing economic data and further central bank intervention depressed the U.S. currency. Consequently the D-Mark improved, although that appeared to put no pressure on the weaker currencies. The Belgian franc remained the weakest currency but improved sufficiently to allow a half-point cut in the discount rate to 9 per cent. The Italian lira showed little initial reaction to the resignation of the Italian Government.

The chart shows the two constraints on European Monetary System exchange rates. The upper grid, based on the weakest currency in the system, defines the cross rates from which no currency (except the lira) may move more than 2 1/2 per cent. The lower chart gives each currency's divergence from its 'central rate' against the European Currency Unit (ECU), itself a basket of European currencies.

TOKYO: The Nikkei Dow Jones index closed on Saturday 42.47 points up at 13,015.59.

YEN bond futures trading drew a flood of contracts at its opening in Tokyo on Saturday. Page 23

JAPANESE banks are pressing the Ministry of Finance to relax its regulations on lending to countries that have rescheduled their debts after last week's U.S. initiative on easing the debt crisis. Page 23

EUROBONDS: More than \$10bn in floating-rate notes have been called before maturity this year, compared with less than \$1bn in 1984, because borrowers see present fine margins as a chance to refinance more cheaply. Page 21

BANQUE Nationale de Paris, France's largest bank, is to enter the Turkish market through a joint venture with Albank, Turkey's leading privately owned bank. The venture, 49 per cent-owned by BNP, will concentrate on trade financing. Page 21

LEYLAND, UK bus manufacturers consortium, whose bid for the renewal of Bangkok's bus system was blocked by the Thai Government, has submitted a new offer worth less than a quarter of the original \$385m (\$542m) deal. Page 20

AMR, parent of American Airlines, the second biggest U.S. carrier, lifted third-quarter net earnings from \$78.5m last year to \$87.3m and achieved a significant 18.2 per cent increase in revenue passenger miles. Page 21

WANG Laboratories, U.S. office equipment manufacturer, produced a profit of \$7m in the first three months of its fiscal year after a \$108m loss in the previous quarter, and said it was cautiously optimistic for 1986. Page 23

Volcker to press U.S. banks over Third World debt

BY PAUL TAYLOR IN NEW ORLEANS

MR PAUL VOLCKER, chairman of the U.S. Federal Reserve Board, will today urge support from American bankers for the Third World debt plan presented by Mr James Baker, the Treasury Secretary.

Mr Volcker has called a private meeting with the group of bankers to make his call as part of an apparent effort to win support for the three-part Baker proposals put forward at the International Monetary Fund (IMF) meeting in Seoul this month.

They include a request that commercial banks provide about \$20bn over the next three years in additional loans to less developed countries.

Mr Volcker will also address the Association of American Bankers in New Orleans.

Mr Jim Cairns, president of the People National Bank of Washington and outgoing president of the association which represents most of the nation's 14,000 commercial banks, said the meeting would also include members of the Association of Reserve City Banks (ARCB) which represents most of the leading money centre banks.



Mr Paul Volcker

Many banks remain deeply sceptical about the request for additional lending to Third World nations, arguing that credit problems in the energy, property and agricultural sectors of the U.S. demand equal or greater attention.

While Mr Cairns said the association would not be putting forward a formal response to the Baker plan if they believed it would lead to higher purchases of U.S. products, including agricultural commodities.

Behind those doubts lies the long-standing rivalry between the leading money-centre banks, which hold about 85 per cent of U.S. loans to less developed countries. Many smaller U.S. banks have been reducing their exposure in recent years and generally view the problem as one for the majors.

Commonwealth struggles for unity over S. Africa

BY ROBERT MAUTHNER, DIPLOMATIC CORRESPONDENT, IN NASSAU

COMMONWEALTH leaders were yesterday painfully inching their way towards a declaration on South Africa that would paper over the fundamental disagreement between Mrs Margaret Thatcher, the British Prime Minister, and most of her 40 colleagues on economic sanctions.

Strenuous attempts were being made at the luxurious country club "retreat" at Lyford Cay, some 17 miles from Nassau, where the leaders gathered over the weekend, to find a form of words that would prevent an open show of disunity.

The effort made by some of the African "frontline" states, India, Australia and Canada to avoid an open clash with Britain has been one of the outstanding features of this conference, which has now entered its fifth day.

The main protagonists in the moves to find an acceptable basis for compromise were Mr Rajiv Gandhi, the Prime Minister of India, and Mr Brian Mulroney, the Canadian Premier. The two leaders, who were representing a four-nation group which also included Zambia and Australia, met Mrs Thatcher twice for a total of six hours on Saturday.

It is becoming increasingly clear that Mrs Thatcher, while accepting the creation of a Commonwealth liaison committee of "wise men", which would attempt to promote a dialogue between the Pretoria regime and leaders of the black community, will refuse to modify her position on further economic sanctions.

The problem all along has been to take account of that position, without forcing the majority of other states, which favour sanctions, to abandon their stand.

The manner in which this is likely to be achieved is now becoming clearer. The document will certainly start with a ringing call for the abolition of apartheid and the institution of genuine democracy in South Africa.

It is likely to go on with the announcement of the setting up of a Commonwealth group to promote a dialogue between the white-dominated regime and the black population in South Africa.

The problem of sanctions, however, will be judged. Instead of listing new economic sanctions, the document will probably confine itself to enumerating the sanctions already applied by Britain and other member states. These include arms and oil embargoes and the cutting of sporting, cultural and military ties. The declaration is also likely to make clear that every member state is free to introduce whatever sanctions, including economic measures, it deems appropriate.

There can be no doubt that such an outcome would be a disappointment to most of the Commonwealth states. At least one, Nigeria, has threatened that failure by Britain to endorse economic sanctions would lead to a further deterioration of the already tense relations between the two countries affecting, in particular, trade, investment and the repayment of debts.

The U.S. has kept a close eye on the conference. A senior U.S. official based in London, with the status of diplomatic observer at the conference, has told representatives of the African front-line states that they could not expect the U.S. to lend them out if sanctions against South Africa had an adverse effect on their own economies.

Continued on Page 20

Ferruzzi is based in Ravenna. Its

interests include Europe's biggest sugar operations, including 40 per cent of France's Beghin-Say, and some 2.5m acres of land in Italy, the U.S. and Latin America. Although the group has never published a balance sheet, its annual turnover is £140,000m, making it the third largest private-sector company in Italy after Fiat and Montedison and bigger in turnover than either Pirelli or Olivetti.

Ferruzzi has a declared direct stake in Montedison of just under 2 per cent, but it has been learned that Sig Gardini has already been granted (by confidential written agreement) control of a shareholding consortium that owns about 10 per cent of the chemicals group. There has been much speculation in Italy recently about a possible alliance between Sig Gardini and Sig Mario Schimberni, Montedison's chairman.

The question of who actually controls Montedison has been unclear since the start of the summer, when

Sig Schimberni incurred the wrath of Fiat and other members of the Gemina group by taking control of the Bi-Invest financial and industrial group against the wishes of Gemina.

Sig Schimberni evidently felt strong enough to break with Gemina and his backers because:

● Sig Gardini gave Sig Schimberni his backing for the ambitious industrial restructuring plan which the Montedison chairman has been pushing through;

● U.S. institutional investors who participated in the placing last spring of more than a third of Montedison's shares (then valued at \$250m) also gave Sig Schimberni their informal backing.

● Dr Enrico Cuccia, the eminence grise at Mediobanca, the Milan merchant bank that has 13.8 per cent of Gemina and separately 7.2 per cent of Montedison, is understood to have given his blessing to

Continued on Page 20

Ministers facing pressure for Treaty reforms

By Quentin Peel in Brussels

EEC Foreign Ministers will be urged today to give new impetus to the exercise to revise their founding Treaty of Rome, with just six weeks before they have to present an agreement to the next Community summit meeting.

Officials in Brussels fear that without decisive action on the direction that reforms should take, there will be no deal to put forward in December.

A plethora of proposals for treaty amendment have been presented in the past week by many of the member states to streamline EEC decision-making, extend the powers of the European Parliament, and move the Community into new areas of operation.

Today's meeting in Luxembourg of the full inter-governmental conference, involving the Foreign Ministers of the Ten, as well as Spain and Portugal, will be asked to give clear guidance on the sort of amendments to be pursued and the priority areas they should concentrate on.

Key proposals concerning decision-making have come from France and the European Commission, while Italy, West Germany, France and the Commission have all put forward plans to give more authority to the European Parliament.

A big surprise in the past week has been the decision of Denmark, hitherto the staunchest opponent of any amendment to the founding treaty, to put forward its own suggestions for improvements. However, none would involve real changes in the power structure of the European institutions, concentrating on new areas of interest like technology and the environment.

The UK and Greece, the other two dissidents who voted against the original decision in Milan last June to hold a full-scale treaty conference, have kept silent on formal amendments, while vigorously debating the proposals of the rest.

The Netherlands has come forward with plans to extend the administrative powers of the European Commission, and to reduce its numbers to 12 - one per member state after Spain and Portugal join in January.

The Commission itself has put forward the most comprehensive package of proposals, including ways of bringing new areas of operation - high technology promotion, the environment, and further action to help the poorest member states catch up with the rest - into the Treaty of Rome.

Belgium wants a passage in the

Continued on Page 20

Italians may reconstruct same coalition

BY JAMES BUXTON IN ROME

THERE WERE signs last night that a solution might be on the way for Italy's political crisis, after a week-end that saw a diplomatic initiative by the U.S. and intense consultations by political leaders in Rome.

President Sig Francesco Cossiga is expected today to ask Sig Bettino Craxi, the caretaker Prime Minister, to form a new government. Sig Craxi resigned on Thursday after the Republican Party pulled out of his coalition in protest against the Prime Minister's handling of the Achille Lauro affair.

On Saturday, Italy and the U.S. patched the deep rift in their relations caused by the affair, thanks to a warm and conciliatory letter to Sig Craxi from President Ronald Reagan. Mr John Whitehead, the U.S. deputy Secretary of State, delivered the letter and in a two-hour meeting with Sig Craxi, helped to soothe the Italian Government's badly ruffled feelings over the harsh words the U.S. had used about it in the past few days.

Sig Craxi now looks set to go to New York later this week for Thursday's meeting of the leaders of industrial powers that President Reagan has called in preparation for his meeting next month with Mr Gorbachev, the Soviet leader.

On Friday, Sig Craxi made known that he would not go to the meeting unless there was a halt to the sharp criticism of the Italian

Continued on Page 20

Channel link stake by British Telecom

BY LISA WOOD IN LONDON

BRITISH TELECOM is to take a stake in the Euroroute Consortium, one of the rival groups applying to build a fixed link across the Channel between England and France.

BT said yesterday its limited stake would represent about 10 per cent of the initial investment. "However, if the Euroroute consortium receives approval for its scheme, additional funding will be needed, thereby reducing the proportion of our investment."

BT declined to say how much its investment would be. Details are expected to be announced later this week.

BT is interested in the telecommunications aspects of a cross-channel link. It could provide a route for extra cables to Europe at a time of increasing congestion in the

international telecommunications business.

Euroroute, the major rival consortium to The Channel Tunnel Group, is led in the UK by Trafalgar House with other British shareholders including Associated British Ports, Barclays Bank, British Shipbuilders and British Steel. Its project, which combines a bridge and tunnel road scheme, has a final estimated cost of £5.3bn. The Channel Tunnel Group scheme is for a bored rail tunnel with traffic being carried across on shuttles. Two other schemes are also likely to be submitted.

Applications to build the link are to be submitted to the British and French governments by October 31. If the schedule is kept, the winner will be announced in mid-January, and work started by autumn 1987.

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For further forceful arguments, contact Mike West, Bristol's Director of Economic Development.

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OVERSEAS NEWS

Egypt waits for U.S. message as tension grows

BY OUR CORRESPONDENT IN CAIRO

EGYPTIAN officials are hoping that Mr John Whitehead, the U.S. envoy who arrived in Cairo yesterday from Italy, is bringing a message from President Ronald Reagan which will defuse the mounting pressure on President Mubarak's government.

About 1,500 students fought a running battle with police at the weekend at Ein Shams university in the wake of the Achille Lauro hijack, and demonstrations have called for an end to ties with Israel and the U.S. and criticised the president's pro-Western stand.

Mr Whitehead's meeting with President Mubarak today will reveal whether he carries a message that can assuage the deep hurt felt by most Egyptians over the U.S. interception of the Egyptian airliner carrying the Palestinian hijackers.

President Mubarak decided not to cancel a scheduled visit to Beni Suef yesterday to inaugurate some farm projects and to address a political rally, as an indication of the humilia-

tion still felt by Egypt.

Since the signing of the Camp David accords with Israel in 1978 Egypt has been a keen ally of the U.S. and receives some \$2bn a year in aid. Observers believe that neither country can risk a major rift but Egyptians feel that the initiative for reconciliation now lies with the U.S.

When President Mubarak came to power in October 1981, after the assassination by Islamic fundamentalists of President Anwar Sadat, he promoted himself as being strongly against corruption. His efforts to democratise the country are today reflected in a vibrant opposition press.

Many Egyptians now believe that, despite his integrity, he may not be the job during a period of economic and political instability.

The strong man whom observers see as an obvious contender for leadership is Field Marshal Hafez Abu Ghazaleh, the Minister of Defence. Like Mubarak, Mr Ghazaleh is a staunch supporter of the U.S.

Gemayel angered by role of rival Christians

By Nora Boustany in Beirut

PRESIDENT Amin Gemayel of Lebanon has signalled his displeasure to Mr Hafez Assad, the Syrian leader, about the involvement of rival Christian leaders in talks about the future of Lebanon.

Gemayel indicated his approval of a draft plan for ending the war in Lebanon and a power-sharing formula favouring the Christian side after his ninth summit meeting with Mr Assad which ended at the weekend. In spite of assurances from the Syrians that no side deals would be concluded with Lebanese adversaries, however, Mr Gemayel privately objected to the attention they were getting in Damascus.

His meeting with President Assad and Abdel Halim Khadim, the Syrian vice president, were preceded by consultations with representatives of Lebanon's three main warlords. A blueprint for an agreement has been thrashed out for final approval next week by Christian militia commander Elie Hobeika. Shiite leader Mr Nabih Berri and Druze chieftain Mr Walid Jumblatt in Damascus.

Fighting in Christian areas, last week, triggered by inter-Christian feuding over a possible Syrian military role here, was hushed up and appears to have stalled any prompt application of the plan.

Leftwing Lebanese leaders, considered close to Syria, have said that prior to any serious peace-making efforts, a "cleaning up" operation inside Palestinian guerrilla camps south of Beirut will get underway.

Militia sources disclosed that Lebanese militia groups under Syrian control will be asked to undertake the task of dismantling the camps as a prelude to other moves.

President Gemayel, who flew to New York on Saturday to address the United Nations General Assembly, will stop in Damascus on his way back to Beirut.

He has complained to Syrian officials that while he was the "Godfather" of Lebanon's Syria option last year, they were conferring with his opponents, who he described as "newcomers."

Christian Democrats regroup in Rhineland

BY RUPERT CORNWELL IN BONN

WEST GERMANY'S Christian Democrats (CDU) this weekend made two important moves to shore up its wavering fortunes in the country's most populous state of North Rhine Westphalia, which could have an important bearing on the federal elections in early 1987.

The Rhineland CDU which, with 138,000 paid-up members, is the largest such organisation of any West German state, elected a new leader, the energetic 43-year-old Herr Dieter Pütz, the mayor of Krefeld. At the same time it voted overwhelmingly to merge itself with the CDU party in neighbouring Westphalia, a decision which should become fact by next March.

The overhaul, aimed to breathe new life into the party in a state which represents around a third of West Germany's electorate, comes five months after the Christian Democrats suffered their worst defeat in a North Rhine Westphalia state election.

The party saw its share of the vote there fall by nearly 36 per cent. By winning an unprecedented 52.1 per cent, Herr Johannes Rau, the state's prime minister, not only gave the Social Democrats unhampered control, but also established himself as the SPD's next candidate designate for the chancellorship in Bonn. Part of the blame for the disaster was pinned on Herr

Bernhard Worms, the somewhat colourless outgoing leader of the Rhineland CDU, whom Herr Pütz now replaces. But at least as much of the responsibility, it was widely argued, lay with the anomalous structure of the party in the state, and the inherent rivalry between the two CDU organisations in Westphalia.

At the weekend congress in Düsseldorf, Herr Pütz implicitly attacked the CDU-led Government in Bonn, under Chancellor Helmut Kohl, for giving undue attention to states where the CDU was already solidly in power, at the expense of those, like North Rhine Westphalia on which it should be concentrating for the next election.

But he carefully left open the delicate matter of who would lead the new single party organisation in the state, a position whose holder will automatically become a key force to be reckoned with in national CDU politics.

The choice lies in effect between Herr Pütz and the Westphalian party leader, Herr Kurt Biedenkopf, a lawyer who is no friend of Herr Kohl, and whom the Chancellor unsuccessfully tried to shift to the presidency of the EEC Commission in Brussels in 1984. Both have signalled in the last few days that if chosen to head a united state party with some 270,000 members, they would seek a considerably larger measure of influence in Bonn as well.



Johannes Rau ... facing new competition

Reagan outlines wider summit agenda

BY REGINALD DALE, U.S. EDITOR IN WASHINGTON

PRESIDENT Ronald Reagan has issued a reminder that the success of his summit meeting with Mr Mikhail Gorbachev, the Soviet leader, next month does not just hinge on progress on arms control.

Moscow must also be ready to change its behaviour in a wide range of other areas, from human rights at home to "armed intervention and subversion" around the world, he suggested in his weekly radio broadcast.

His remarks followed criticism that the Administration has so far allowed Mr Gorbachev to dictate the main thrust of the summit agenda by focusing the spotlight on Mr Reagan's Star Wars space defence programme.

While reaffirming the importance of drastic reductions in nuclear weapons, Mr Reagan said: "True peace must be based on more than just reducing the

Soviet industrial output grew by 3.7 per cent in the first three quarters of the year but all production is down by 4 per cent over the same period in 1984, writes Patrick Cockburn in Moscow.

Gas output at 473bn metres is 10 per cent up, but overall growth is still patchy and

below the 4 per cent target which Mr Mikhail Gorbachev, the Soviet leader, says he needs to meet the demands of investment, defence and consumption. Steel production was down 1m tonnes at 116m, but coal output was up by 7m tonnes at 542m.

and the treatment of its own citizens, as well as restrain its arms build up, he said.

Mr Reagan's comments were intended to set the tone for a two-day visit to New York, starting on Wednesday. On Thursday he is to deliver a major speech to the United Nations General Assembly and hold consultations with five other Allied leaders in a Western "mini summit" to

prepare for his encounter with Mr Gorbachev.

Mr Mikhail Gorbachev meets Warsaw Pact allies in Sofia this week for a summit at which the Communist military alliance will co-ordinate policy towards the West ahead of next month's superpower summit in Geneva. In line with East Bloc practice on such occasions, no precise date has been announced for the Sofia summit. But sources said it could be held on October 22 and 23.

At the end of their meeting the seven Communist leaders are expected to issue a joint communiqué urging the U.S. to reply to Mr Gorbachev's recent proposal for a joint cut of 50 per cent in long-range nuclear weapons.

Western diplomats also expect the Pact to condemn the U.S. Strategic Defence Initiative (SDI) programme.

Chrysler union seeks extra cash

By Terry Dodsworth in New York

TRADE UNION representatives of 70,000 striking car workers at Chrysler, the U.S. motor company, hardened up proposals at the weekend for special cash bonuses aimed at recovering lost wages from the salary cut-backs of the last five years.

The new demands emerged from a meeting between the top-level negotiating committee of the United Auto Workers (UAW) and Chrysler's 170-member workers' council, which represents shop-floor employees.

Mr Owen Bieber, president of the UAW, was deliberately vague about the claim, but confirmed the union would be seeking "extra money" as well as parity in wages and benefits with Ford and General Motors. The UAW is likely to ask for either one bonus payment or a series of staggered payments to make up for some of the money lost in concessions made to the company in its financial crisis between 1979 and 1982.

Mr Bieber, who is also a Chrysler main board director—a position he has temporarily vacated to lead the union negotiations—appears to be optimistic that the five-day-old strike can soon be brought to an end after the resumption of talks today.

Three key issues now seem to be dividing the two sides, apart from the bonus question.

Syria and Jordan renew talks on reconciliation

BY LOUIS FARES IN DAMASCUS

THE FIRST train for 18 months travelled between Damascus and Amman at the weekend as the Prime Ministers of Syria and Jordan arrived in Riyadh for a second round of reconciliation talks.

Mr Aqil Ismail, Director General of the Hijaz railway, said that from now on one train will transport cargo every week "according to the common wish of the two countries." Cargo capacity was about 300 tons, and more trips could be added.

Saudi officials said the Arab League sponsored talks between Prime Minister Zaid Rifa'i of Jordan and Prime Minister Abdel-Rauf al-Kassab of Syria, would be attended by Saudi Arabian Crown Prince Abdullah Ibn Abdulaziz, Prince Saud al-Faisal, Saudi Foreign Minister, Mr Chedi Klubi, League Secre-

tary General. Arab diplomats said there appeared to be encouraging signs of a desire by both countries to boost bilateral trade and end propaganda warfare. They said it was significant that Isam al-Na'ib, Syrian Minister of State, attended Friday's funeral in Amman of Mr Abdul-Mune'eb al-Rifa'i, a former Jordanian Prime Minister and uncle of the present government leader.

Mr Na'ib was the first senior Syrian official to visit Jordan for several years. The usually well-informed Jeddah-based newspaper Ash-sharq al-Awsat, said Jordan's February accord with the Palestine Liberation Organisation (PLO) for a negotiated Middle East peace, which Syria describes as capitulatory, would top the agenda for the talks.

Hungary puts Western newspapers on sale

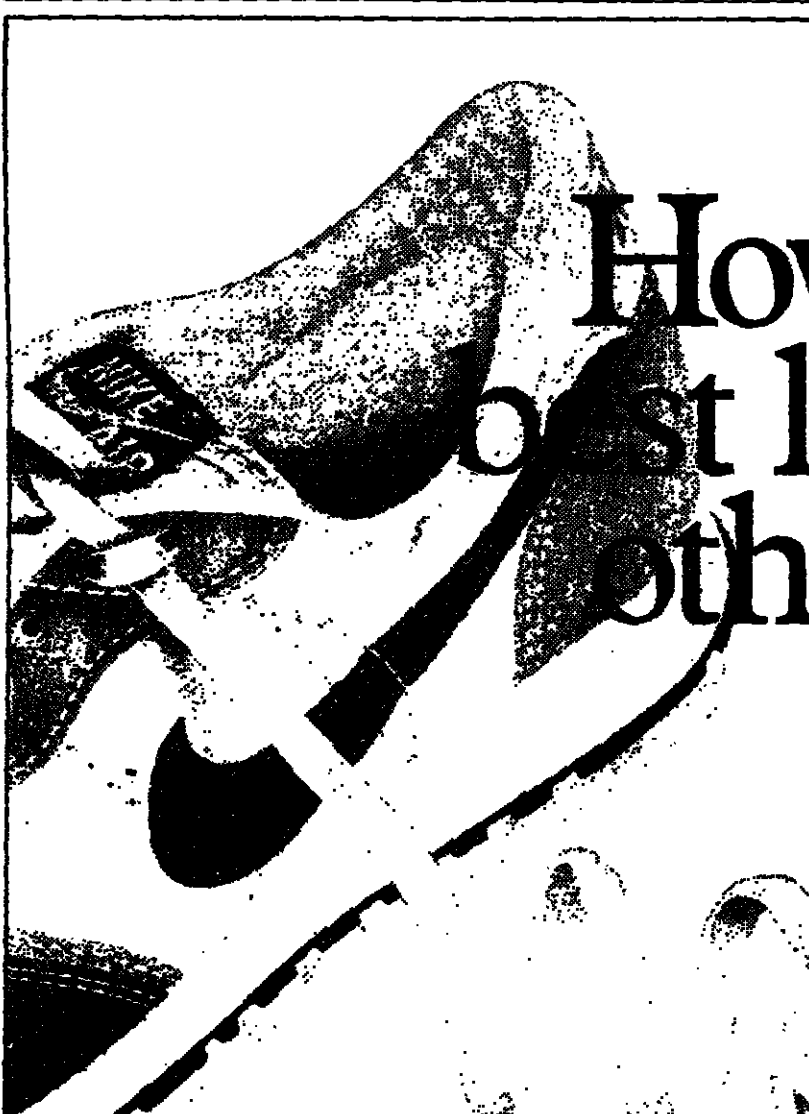
BY LESLIE COLT IN BERLIN

HUNGARY has become the first Warsaw Pact country to put Western newspapers on sale to the public. The move coincided with the holding of a major cultural conference in Budapest sponsored by European Governments to discuss the issue of a freer flow of information between Western and Eastern Europe.

Hungarian officials said the decision to make Western newspapers available to ordinary citizens was not a temporary measure. It is to be expanded to include news stands in all major Hungarian cities. The newspapers which went on sale were the International Herald Tribune, the Times and Frankfurter Allgemeine which were previously available only at a few hotels catering to

Westerners in Budapest. Western newspapers are read in Eastern Europe by a considerable number of high-ranking officials, but access to them by the public has been virtually non-existent in all countries except Poland, where they have been available in reading rooms.

East European officials argue they do not have sufficient hard currency to offer Western newspapers on news stands. Hungary, however, has taken this step at a time when it has suffered a fall in hard currency earnings. In East Germany Western newspapers are sold only at a few top hotels and West German newspapers are usually confiscated at the border and may not be mailed to East Germans.

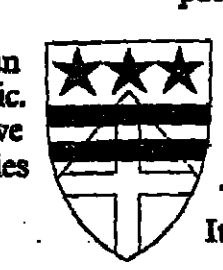


How do you choose the best location with so many others in the running?

Washington

In Nike's case they used simple logic. As the world's leading running-shoe manufacturer, parented in the USA, they knew exactly what a Nike-UK operation needed: fast and efficient distribution; a highly motivated workforce; keen local suppliers; and an environment which would appeal to relocated management personnel. Nike looked at 6 sites, most of them near London. They chose Washington, Tyne and Wear. So how much of what they wanted did Washington give them? For a start, they enjoy better distribution with lower overheads than they'd get in central England. The local workforce is enthusiastic. First-class suppliers are on their doorstep. Relocated personnel have all the advantages of lower cost housing and the extensive amenities of the North East. And that's not all. Within 1 year of settling into Washington, Nike

turnover had doubled. So did the workforce. After 3 years, Nike sales were up 20-fold. The company is well embarked on a programme of expansion that will probably bring them to within panting distance of Adidas in the general sports-gear market. And they did it all from Washington, with the help of the best financial package available to any development area in Britain. In the words of Managing Director, Brendan Foster: "The best thing Nike ever did was to set up their company in England; the second best thing they did was to set it up in Washington." If you'd like to learn what Nike learned, contact Norman Batchelor, Washington Development Corporation, Usworth Hall, Washington, Tyne & Wear. Telephone: (091) 416 3591. Telex: 537210 DC WASH G. It will help your business to walk. Running comes later.



Washington. Profit from our experience

OVERSEAS NEWS

U.S. supports protests against Seoul torture

BY STEVEN A. BUTLER IN SEOUL

THE U.S. Government has lent its weight publicly to protests in Seoul against the use of torture by the South Korean Government.

The Seoul protests led to the detention on Saturday of Mr Kim Dae-jung who was placed under house arrest for one day. This was to prevent him from participating in a joint news conference which he and Mr Kim Young-sam, the opposition leader, called to denounce the use of torture.

The U.S. had made known its "serious concern" about two "deplorable incidents."

In August, agents of the National Security Planning Agency detained three journalists from the Dong-a Ilbo, an outspoken daily newspaper, and beat them severely. Ostensibly, the journalists were being questioned because their paper ran an article one day ahead of the Government's official announcement that a defecting Chinese pilot would be allowed to travel to Taiwan. The move was widely interpreted as an attempt to intimidate the paper.

The second case involves a

student activist, Mr Kim Koo-tae, currently in police custody. Mr Kim's wife saw him by accident at the Seoul prosecutor's office, and reported that he was barely able to stand. He had been subjected to electric shocks, and a torture called "roast chicken." Dissidents describe this as "a process by which the victim is suspended by a pole under his arms which are tied behind his knees, and forced to pepper-laced water, then beaten repeatedly while spinning helplessly in the air."

Dissidents say many other political prisoners have been subjected to similar treatment.

South Korea sank a North Korean boat early on Sunday morning off the south-east coast, accusing it of spying.

General Chung Jin-kwon, chairman of the joint chiefs of staff, said that the "spy vessel" was discovered 13 miles north-east of the south-east coast. It ignored an order to halt and opened fire while fleeing into the night.

The South Korean armed forces gave chase for three hours before aircraft finally sank the boat.

Sino-Soviet talks end without progress

By Robert Thomson in Peking

TALKS on the normalisation of relations between China and the Soviet Union have broken up, with China's three obstacles to normal relations still firmly in place, though the two sides yesterday released a conciliatory communiqué.

The discussions, the seventh in a series of get-togethers, ended on Friday, and the Soviet special envoy, Mr L. F. Ilyichev, left for Moscow yesterday after a two-week visit.

China and the Soviet Union fell out 23 years ago over profound political, ideological and territorial differences. In the past two years, Sino-Soviet trade has increased markedly and China has been assiduously cultivating relationships in Eastern Europe.

However, the Chinese say three obstacles must be removed before normal relations can exist: Soviet support for the Vietnamese occupation of Kampuchea, the Soviet occupation of Afghanistan, and the mass of Soviet troops on the Chinese border.

The joint communiqué made no mention of any progress on any of the obstacles. It said that the Chinese special envoy, Qian Qichen, and Mr Ilyichev "continued their exchange on the question of normalisation of Sino-Soviet relations and on certain international issues."

The two sides pointed out that there was an expansion of bilateral ties and contacts in many fields, and reaffirmed their readiness to further improve and develop their relations.

South African debt meeting called

BY WILLIAM DULLFORCE IN GENEVA

SOUTH AFRICA will meet its creditor banks in London on Wednesday for the first formal negotiation since it imposed a four-month moratorium on debt repayments at the end of August.

The meeting has been called by Dr Fritz Leutwiler, the former president of the Swiss National Bank, who is acting as mediator.

The one-day meeting will concentrate on technical details, according to a spokesman for Dr Leutwiler. It is unlikely to consider the political issues which have to be resolved before South Africa's \$24bn (£17bn) debt can be restructured and normal financial business resumed.

Swiss bankers believe it will be extremely difficult in the present political climate to reach a settlement before the end of the year, when the payments standstill is due to expire.

Dr Leutwiler will explain on Wednesday how he envisages his mediating role. He said earlier that he did not see himself merely as a "messenger boy" and that he hoped to achieve concrete results by the end of the year.



Dr Leutwiler... to outline mediating role

Dr Chris Stals, South Africa's director general of finance and head of its standstill co-ordinating committee, is expected to outline to the 29 creditors represented at the meeting proposals for managing the moratorium and possibly for making it more flexible.

Bankers are looking for clarification of how South

Africa intends to handle the large proportion of interbank lending in the \$14bn short-term debt.

Other unclear points concern interest rates on the blocked loans, South Africa's position on the private sector debt and the coverage Pretoria ascribes to its moratorium. Some government notes and loans to the South African transport company, have been repaid since the beginning of September.

The nub of the matter remains the attitude of the U.S. banks which precipitated the South African moratorium, when they asked at short notice for large-scale repayments of their short-term loans.

The U.S. banks acted under pressure from the domestic anti-apartheid movement, demonstrated in the withdrawal of deposits by local authorities, including New York City, and growing support within the U.S. Congress for sanctions against the white regime in South Africa.

The pressure on the U.S. banks has not been eased by the hanging of Mr Benjamin Molise in Pretoria last Friday,

which has overshadowed recent hints of reforms from Mr P. W. Botha, the South African President.

Dr Leutwiler was in New York recently but he has given no hint of the outcome of any talks he may have had with U.S. bank leaders.

Other banks, most notably the Swiss, have emphasised that they are not willing to fill the gap left by the withdrawal of U.S. credit to South Africa. Until the restructuring of the short-term debt, in which the U.S. banks have the largest exposure, has been realised no fresh medium- or long-term credit will be available to South Africa.

Dr Nikolaus Senn, president of the executive board of Union Bank of Switzerland, has said that a country which has suspended payments because its short-term loans must be restructured is not in a position to float a public bond issue.

After the U.S., the British and Swiss banks have the largest exposures in South Africa. West German, French and Japanese bankers are also expected to attend Wednesday's meeting.

Sudan rebel leader declares ceasefire

By John Murray Brown in Khartoum

SUDAN'S two-year civil war, which has divided the Moslem north from the Christian south, moved one step closer to a resolution over the weekend when the rebel Sudan Peoples Liberation Army (SPLA) declared a two-week ceasefire.

This was the first such move since the April coup led by Gen Swareddahab which ousted former President Jaffar Numeiri. Col John Garang, the rebel leader, said in an interview in Addis Ababa last week that he was prepared to meet any group, including the army, to reach a settlement.

He set no preconditions for the talks and called for a national conference to be convened in December to discuss the issue.

Western diplomats were yesterday cautiously welcoming the rebel leader's remarks, which were described by a Government official as creating an opportunity for contact.

Col Garang also restated his various demands, which include the lifting of the state of emergency enforced since April, a cancellation of Islamic Sharia law, the abrogation of all agreements with Libya and Egypt and the formation of a provisional government of national unity.

Rebel activity in the south where all road, rail and river links are cut has lessened in recent weeks, according to Western sources. In early September the SPLA lifted its 3-month siege of a town in Bahr el Ghazal province.

Earlier assurances from Col Muammer Gadhafi that Libya had stopped supplies to SPLA came to nothing following the restoration of diplomatic relations between Tripoli and Khartoum.

Indonesia moves 'illegal immigrants' to prison camp

BY KIERAN COOKE IN JAKARTA

INDONESIA is moving more than 1,200 people, mostly of Chinese origin, to a detention camp in a remote island in the east of the country. Mr Ismail Saleh, the Justice Minister, said the Government did not intend to keep the people in captivity for the rest of their lives but they would be kept in detention until their country of origin accepted them.

Many of those to be sent to the camp are Chinese born in Indonesia, who left the country in the late fifties and mid-sixties and went to China but later drifted back. About 4m of Indonesia's 160m population are Chinese and there have been periodic outbreaks of anti-Chinese feeling. Indonesia broke off diplomatic relations with China in the mid-sixties.

FINANCIAL TIMES

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Three die as police fire on funeral crowd

BY ANTHONY ROBINSON IN JOHANNESBURG

THREE people died in the black township of Atteridgeville near Pretoria yesterday when police fired teargas and birdshot at a large crowd of mourners at the funeral of a 19-year-old boy, allegedly killed by police on his way to a church service last weekend.

In the Cape peninsula the funeral of three coloured youths killed by railway police who fired from a decoy lorry in the coloured suburb of Athlone last Tuesday passed off peacefully on Saturday after police stayed away.

The Athlone funeral was preceded by a massive show of police force on Friday night when hundreds of troops and police backed by armoured cars and helicopters sealed off the suburb and interrogated local residents.

The night before police had surrounded the St Athens mosque in Athlone. Shots were fired from the crowd, seriously wounding a police dog handler, after police opened fire with teargas and bird shot killing a 29-year-old Moslem, Mr Abdul Karim Friddle.

Mr Friddle was also buried on Saturday in a ceremony attended by thousands of Moslems carrying placards with quote from the Koran and flags of the banned African National Congress (ANC). They were guarded by marshals wearing Islamic red and white check headscarves.

Meanwhile, in Port Elizabeth an explosion followed by fire has destroyed the house owned by Mr Cheeky Watson, a former Springbok rugby star whose support for multi-racial sport before it became fashion-

able and sympathetic attitude towards black aspirations, has made him, and his three brothers, anathema amongst rightwing elements in the police and the local white community.

The Watson brothers, who run a chain of mens clothing shops in the Port Elizabeth and Uitenhage area, have been excluded from the black consumer boycotts of white shops, now in its third month, which is facing many white retail businesses with bankruptcy.

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(Incorporated under the Companies Act 1948 and registered in England No. 264428)

INTRODUCTION TO THE OFFICIAL LIST

SHARE CAPITAL		
Number	Ordinary shares of 10p each	£
35,000,000	Authorised	3,500,000
28,281,875	Issued allotted and fully paid at present	2,828,188
31,817,110	following rights issue	3,181,711

The Council of The Stock Exchange has admitted the whole of the issued share capital of Garfunkels Restaurants plc (formerly dealt in on the Unlisted Securities Market) together with those shares allotted in accordance with the rights issue, as described in the document to shareholders dated 18th October 1985, to the Official List. It is expected that dealings will commence on 21st October 1985.

Listing particulars relating to the Company are available in the External Statistical Services and copies of such particulars are also available during normal business hours on any weekday (excluding Saturdays) up to and including 4th November 1985 from

CAPEL-CURE MYERS
Bath House,
Holborn Viaduct,
London EC1A 2EU

and are also available from the Company Announcements Office, Quotations Department, P.O. Box 119, The Stock Exchange, London EC2P 2BT on 22nd and 23rd October 1985.

21st October 1985

This advertisement is issued in compliance with the requirements of the Council of The Stock Exchange. Application has been made to the Council of The Stock Exchange for the grant of permission to deal in the Ordinary Shares of Gibbon Lyons Group plc in the Unlisted Securities Market. It is emphasised that no application has been made for the shares to be admitted to listing. A proportion of the shares being placed may be available to the public through the market during market hours.

Gibbon Lyons Group plc

(Registered in England No. 276919)

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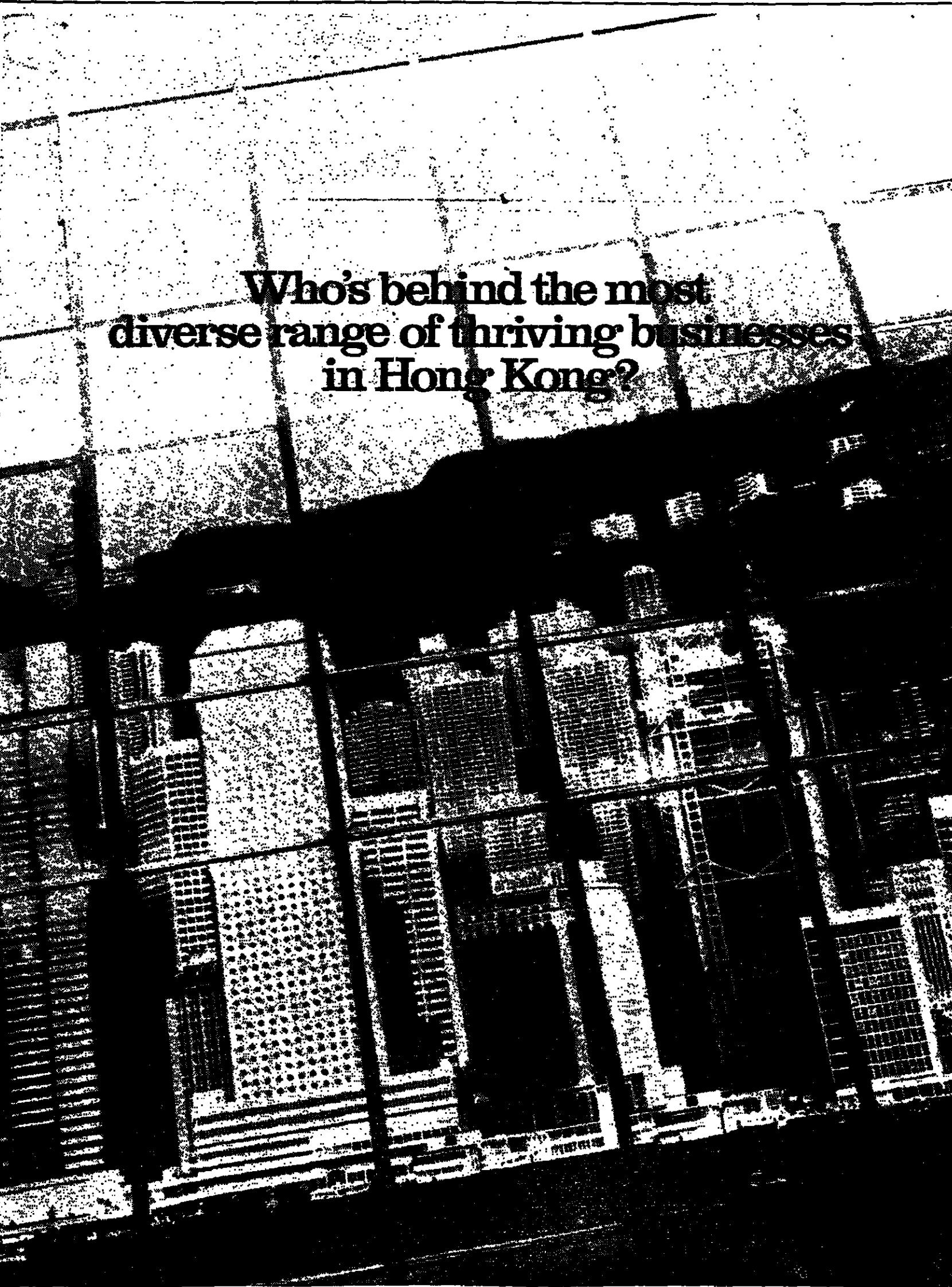
400,000 Ordinary Shares of 10p each at 72p per share

Authorised	Share Capital	Issued and now being
£450,000	Ordinary Shares of 10p each	issued fully paid
		£400,000

The main activity of Gibbon Lyons Group plc through its wholly owned subsidiary, A.R. Gibbon Limited, is the manufacture of fine quality printing in which it supplies together with a wide range of printers' chemicals and sundries through its network of colour centres. The group's customers include producers of magazines, brochures, cartons, labels, greetings cards, gift wrapping and maps and range from the small "quick print" shops to large web-offset printers.

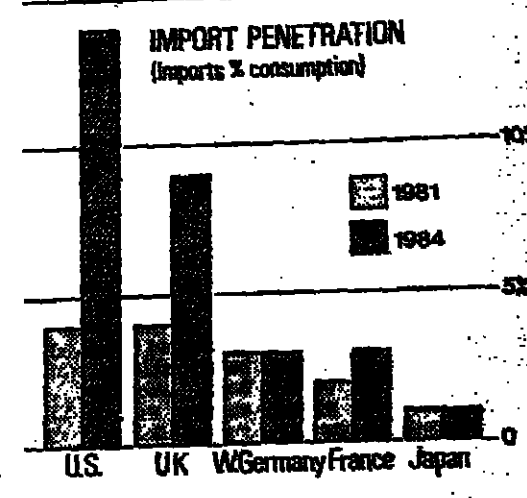
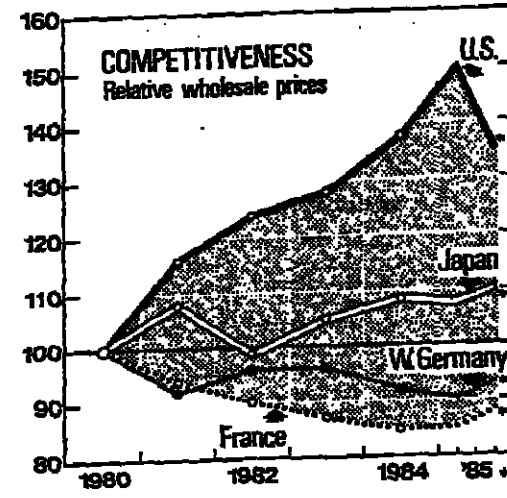
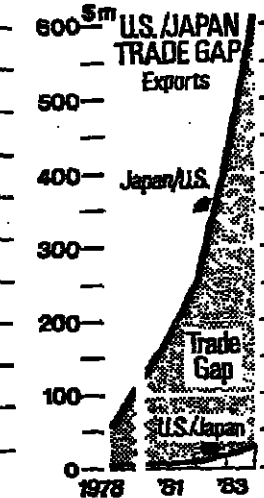
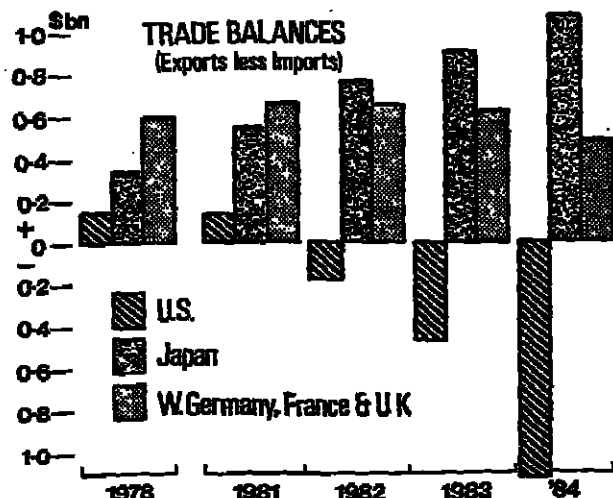
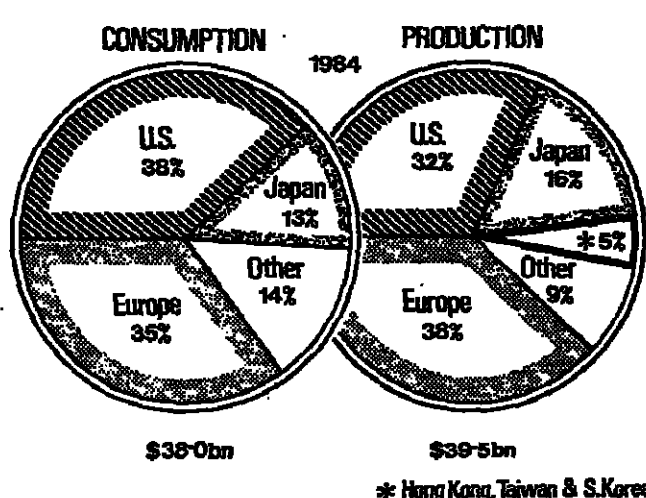
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Who's behind the most
diverse range of thriving businesses
in Hong Kong?

STATISTICAL TRENDS : TELECOMMUNICATIONS EQUIPMENT



U.S. and Europe dominate \$150bn World market

THE WORLD market for telecommunications equipment is estimated at \$40bn a year. If accessories and parts are included the total rises to \$150bn.

The U.S. has 40 per cent of the market with Europe second holding a 35 per cent share. Most growth has also been seen in the U.S. in line with the country's economic expansion in 1983 and 1984.

Competition in the U.S. is probably fiercest in the \$3.2bn a year market for switching equipment for telephone exchanges. Europe and the U.S. dominate production, accounting together for 70 per cent of the total. Japan's share is around 15 per cent with the new entrants—Hong Kong, Taiwan and South Korea—accounting for 5 per cent.

Much of Japan's production is in telephone sets and related equipment aimed at taking advantage of world growth in terminal equipment and handsets, particularly in the U.S.

In 1978 the U.S. had a surplus of \$150m

JAPAN	
PRODUCTION 1984	
Switching equipment	201
Telephones	80
Telephone systems	234
Telephone terminal equipment	353
Data and text terminals	198
Transmission equipment	213
Other	719

Source: Mackintosh Year Book

on its trade balance in telecommunications equipment. By 1984 that had changed to a deficit of \$1.1bn, more than half of which was accounted for by the trade gap with Japan, which reached \$860m. The U.S. is Japan's main export market, taking 55 per cent. For the wider definition of telecommunications—including accessories and parts—the gap stood at \$3bn.

This growing U.S. deficit on telecommunications, as with other goods, reflects

lower competitiveness from a rising dollar. Even with the fall in the dollar this year U.S. products are still 40 per cent less competitive than they were in 1980.

Japan's trade balance in telecommunications equipment has grown from \$340m in 1978 to \$1.1bn in 1984, while the main European producers have seen their balance decline slightly from \$800m to \$300m.

Although the U.S. has run into a substantial deficit it remains a major exporter, second only to Japan, exporting \$800m in 1984.

The Japanese and many European markets remain virtually closed to foreign imports.

Import penetration of Japan is less than 1 per cent and in Germany and France it is below 3 per cent.

Importers have increased their share of the UK market from 4 per cent to 9 per cent and in the U.S. imports now command 14 per

cent against 4 per cent in 1981.

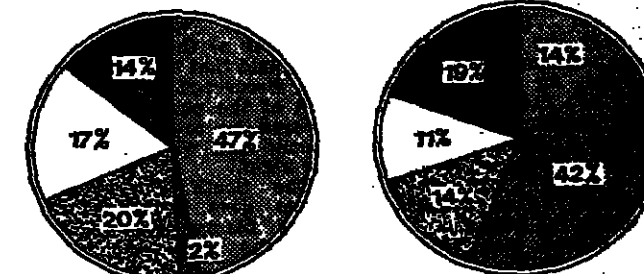
Competition in the U.S. has also been intensified by the breakup of the Bell Telephone operation with U.S. companies facing competitive bidding from Japanese and European companies for the \$3.2bn market in switching equipment.

It is not clear how much the growth in this sector—estimated at more than \$10bn worldwide—is due to natural growth, and how much is due to the change from older analogue exchanges to newer digital exchanges.

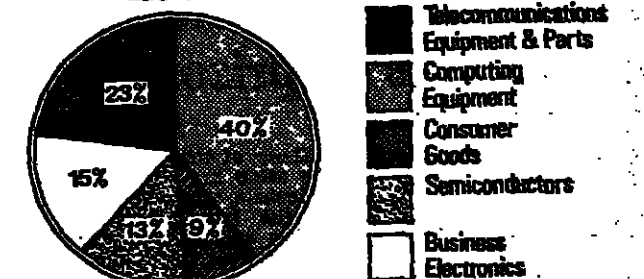
The lack of comparable historical data makes it difficult to measure any relatively new industry which is subject to technological change, such as telecommunications.

Telecommunications also covers a wide range of products and for this reason this feature has concentrated on recent trends and developments in switching and transmission equipment and related telephone and data handling equipment.

EXPORTS OF ELECTRONIC PRODUCTS



EEC \$28bn



Telecommunications Equipment & Parts
Computing Equipment
Consumer Goods
Semiconductors
Business Electronics

COMPANY RESULTS	
REVENUE	
	1980 1981 1982 1983 1984
NORTH AMERICA	
ITT (\$bn)	18.5 17.3 18.0 14.2 12.7
GTE (\$bn)	9.7 10.7 11.8 12.3 14.5
Northern Telecom (CSbn)	2.1 2.6 3.0 3.3 4.4
JAPAN	
Nippon Electric (Yen bn)	1,051 1,252 1,443 1,782 2,288
Hitachi (Yen bn)	3,359 3,589 3,954 4,387 5,013
Okai Electric (Yen bn)	213 243 280 345 418
EUROPE	
Siemens (DM bn)	32 34.6 40.1 39.5 45.6
ITT/Alcatel (FFr bn)	8.2 10.7 12.4 13.1 14.5
Ericsson (SKr bn)	12.2 15.2 19.6 25.2 29.4
Plessey (£m)	945 985 1,120 1,252 1,416

MAIN EUROPEAN PRODUCERS 1983/84	
W. Germany France UK	
	DMm Ffrn £m
Misc.	4,882 22,400 1,450
Data & text terminals	874 1,238 88
Transmission equip.	1,190 2,643 248
Telephone equip.	1,190 2,643 248
Telephone sets	2,281 168
Other Equip.	673 2,620 168
Total	7,880 22,400 1,450
Exchange rates/\$	2.05 6.74 0.79p

Source: Mackintosh Year Book

U.S. TRADE IN TELECOMMUNICATIONS EQUIPMENT	
1984	
	% share
Exports (\$780m)	Imports (\$1,900m)
EEC	15 Japan 62
Canada	14 Canada 16
OPEC	10 EEC 4
Mexico	7 Taiwan 12
Egypt	5 H. Kong 7
Japan	4 S. Korea 4

Source: OECD

TELECOMMUNICATIONS EQUIPMENT IMPORTS	
% share	
	W. Germany, France, UK 1984
Japan	22
EEC	29
U.S.	22
H. Kong, Taiwan, S. Korea	7

Source: OECD

TOTAL DOMESTIC DEMAND	
% change	
	U.S. Japan Europe
1979	2.0 8.4 4.3
1980	-1.2 1.2 1.5
1981	3.3 2.1 -1.8
1982	-1.2 3.2 0.9
1983	5.0 1.9 1.0
1984	8.7 4.0 1.7
1985	3.7 4.5 1.7

Source: OECD

TELECOMMUNICATIONS EQUIPMENT PRODUCTION	
% change	
	U.S. Japan Europe
1980	25
1981	12
1982	-12 16 4
1983	7 21 20
1984	9 14 24

Source: Mackintosh Year Book

TELECOMMUNICATIONS EQUIPMENT ACCESSORIES AND PARTS 1984	
EXPORTS \$m IMPORTS \$m	
Germany	1,840 1,170
France	1,200 580
UK	1,130 1,080
Japan	5,640 440
U.S.	3,420 7,800

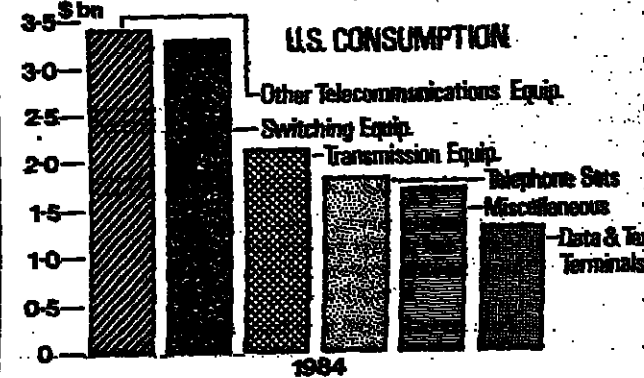
Source: OECD

TELECOMMUNICATIONS EQUIPMENT EXPORTS \$m values	
% change	
	1978-81* 81-82 82-83 83-84 1984
U.S.	19 27 -4 -2 780
Japan	18 57 14 29 1,120
W. Germany	9 4 -13 8 450
France	15 39 87 -21 200
UK	5 12 16 18 150

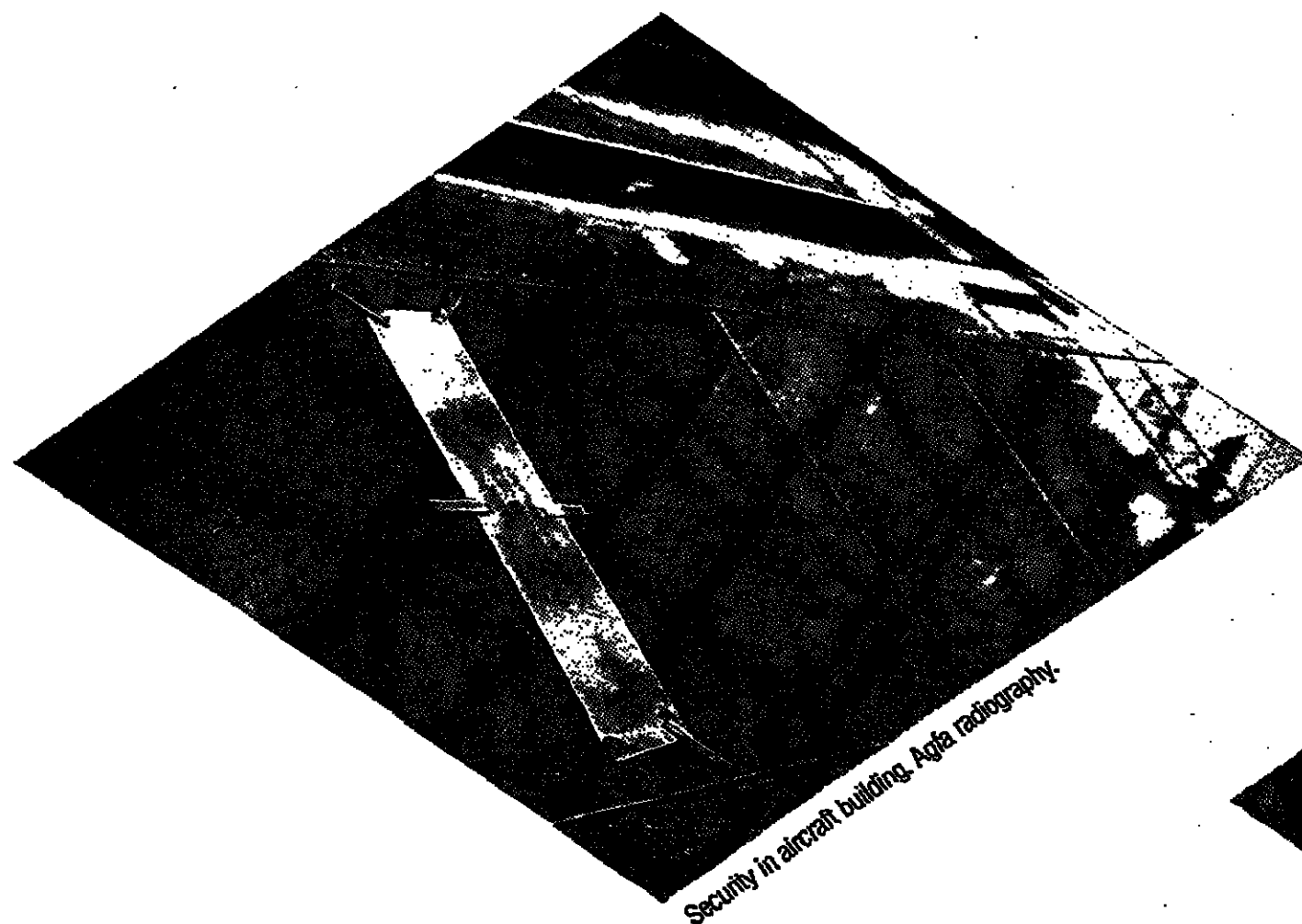
Source: OECD

TELECOMMUNICATIONS EQUIPMENT IMPORTS \$m values	
% change	
	1978-81* 81-82 82-83 83-84 1984
U.S.	30 25 34 60 7,800
Japan	9 33 27 21 40
W. Germany	10 -14 13 16 70
France	22 21 31 -5 50
UK	11 10 40 41 150

Source: OECD



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WORLD TRADE NEWS

JAPAN STRAINS TO ENCOURAGE FOREIGN IMPORTS

Mitsubishi launches 'Operation Bulldog'

BY CHRISTIAN TYLER, TRADE EDITOR

A MITSUBISHI manager in London went out jogging and stumbled on a name for the scheme his trading house, Japan's largest, is launching to help Mr Yasuhiro Nakasone, the Japanese Prime Minister, reduce trade tensions with Europe.

Mr Mikio Kawamura, a 50-year-old Sherlock Holmes fan, says he bumped into a gentleman walking his dog. After exchanging a few canine pleasantries, he found his clue and his answer.

"Operation Bulldog" is the name he chose to denote

Japanese (if not British), tenacity in seeking to reduce the trade surplus that is Japan's number one foreign relations problem with the West.

Mitsubishi's London office has created an export promotion desk to provide medium-sized and small British companies with expert advice on marketing their products in the notoriously difficult Japanese market.

Mr Kawamura stressed that Mitsubishi is a business, and not involved in the political argument. But the service will be free, and he admitted that

his headquarters in Japan had been asked to promote imports from countries with which Japan has a big surplus. Japan's surplus on visible trade with Britain is running at about \$3bn annually.

"I don't think we shall have many inquiries about selling 100,000 tons of coal," he said. "We are looking more for technically-orientated products or services, small but unique. The competitiveness of your business really lies at the grassroots. Many of your companies have brilliant ideas and products, but cannot commercialise

them."

He said Mitsubishi would be frank in rejecting unsuitable products, but would even market itself products which it thought would catch on. Initial enquiries have come from a maker of kitchen systems, a scrap metal merchant and a seller of reconditioned printing machinery.

Some British companies, according to Mitsubishi, can be "obstinate" in their refusal to modify products for the Japanese market. Others are blameworthy ignorant of what will sell.

In the past, potential exporters had been rebuffed without any reasonable explanation of their failure. "This desk will give explanation, even if the case does not look hopeful," Mr Kawamura said.

Mitsubishi's London office handles 7 per cent of UK exports to Japan, and about 4 per cent of Japanese exports to Britain, according to Mr Shiro Shibuya, chairman of the London and European operation. But only 3 to 4 per cent of its traffic is British sourced. The office is the chief conduit for exports from former British colonies in Africa and from the Middle East.

Boeing wins \$90m order from Cathay Pacific

By Michael Donne, Aerospace Correspondent

BOEING of the U.S. has won a \$90m (\$63m) order from Cathay Pacific, the Hong Kong airline, for a fourth Series 300-747 Jumbo jet for delivery in November, 1986.

Cathay already operates one 747-300, and has two more on order. The decision to buy the fourth stems from increased traffic growth. It will be used on services to Tokyo, Singapore, Jakarta, Frankfurt and London.

Boeing has also sold to Pan American Airways three Airbus A-310-300 twin-engine jets, for a sum believed to be around \$150m.

The aircraft were originally ordered from Airbus Industrie by Kuwait Airways, but were acquired by Boeing when Kuwait decided to change from the A-310s to Boeing 767s.

Pan Am has now bought those aircraft in addition to its existing orders for 12 Airbus A-310s and 16 A-320s, with options on another 13 A-310s and 24 A-320s.

Boeing expects to receive soon its first order for the latest version of the 747 Jumbo, the Series 400 model with improved payload and range performance.

Mr Joe Sutter, executive vice-president of Boeing, said that Boeing was also optimistic about future sales of its smaller 737-300 twin-engine jet airliner in South-East Asia, especially in China. Boeing was discussing the possible joint production of the aircraft in China, but the talks were only in their earliest stages.

CP Air Vancouver is to swap its fleet of four Boeing 747s for four DC-10 aircraft owned by Pakistan International Airlines, Bernard Simon reports from Toronto.

CP Air, Canada's second largest airline, said the exchange was aimed at expanding its international network. The 257-seat DC-10s will allow more frequent services on existing and new routes.

Bush gives little comfort to HK on protectionism

BY DAVID DODWELL IN HONG KONG

THE U.S. Administration remains firmly opposed to protectionism and will fight such moves in the Senate, Mr George Bush, U.S. Vice President, said in Hong Kong at the weekend at the end of a six-day tour of China.

He warned however that the free-trading territory of Hong Kong could not expect a special case to be made for it if the protectionist bills now being pressed in the Senate were passed.

"If the protectionist tidal wave comes rolling through the Pacific," Mr Bush told American businessmen in Hong Kong, "it is unlikely to distinguish the innocent from the guilty."

The message brought no comfort to Hong Kong's exporting community, which has in recent months become increasingly alarmed about restrictive trade laws being pushed in the Senate—particularly the Jenkins Bill, aimed at curbing textile sales to the U.S.

Mr Bush was speaking after a tour of several Chinese cities, during which he had focused heavily on trade issues between the U.S. and China. Resisting pressure to comment on his talks in the mainland, he commented: "We have some differences with China. They know what they are, and we know what they are. But we both know that the relationship is good."

The emphasis on trade naturally spilled over into Hong Kong, where Mr Bush spent just 24 hours before returning to the U.S. Hong Kong is America's tenth-largest trading partner, with two-way trade expected to reach \$1.2bn (\$858m) this year. Hong Kong manufacturers are likely to suffer greatly if protectionist legislation like the Jenkins Bill becomes law.

Of greater comfort was Mr Bush's forthright attack on protectionism. "The Jenkins Bill is an unsatisfactory Bill," he said. "The main aim of the Reagan Administration was to agree new terms for a general agreement on Tariffs and Trade (GATT) that would ensure a more equitable trading system," he said. He did not think the U.S. was likely to go what he described as "the protectionist route."

Mr Bush was nevertheless blunt about the strength of protectionist sentiment in the U.S. "Please understand that there is some heartbreak at home," he said. "Many jobs had been lost in the U.S. as imports had surged, especially from the Pacific," he said.

Calling for international barriers to free trade to be lowered, he warned that the U.S. Administration was "going after" states that continued to trade behind high tariff walls. "There will be no more Mr Nice Guy while others continue to violate existing trade laws," he said.

Source: IMF

World Economic Indicators

FOREIGN EXCHANGE RESERVES (\$m)				
	August 85	July 85	June 85	August 84
U.S.	7,894	7,958	7,407	4,190
Japan	24,106	23,787	23,379	21,264
W. Germany	34,474	35,937	34,412	38,416
UK	8,137	8,109	7,927	6,929
Italy	19,199	19,535	18,698	19,036
Belgium	3,843	4,051	4,081	3,258
Netherlands	8,436	8,050	7,537	8,417
France	21,547	21,485	20,968	20,058

Source: IMF

Tokyo fair fails to see best of British

BY CARLA RAPOPORT IN TOKYO

CHARLOTTE BRONTE pie and Fortnum and Mason tea were meant to be on offer as part of the Great Britain 1985 Fair at Tokyo's Mitsukoshi department store.

The fair was one of 1,114 fairs planned for this month and next by Japan's leading retailers and sponsoring government agencies as part of an attempt by the Government to help Japan shed its image as an ethno-centric exporter with no appetite for foreign goods.

Unfortunately, if the Mitsukoshi fair was typical of the other 1,113, Prime Minister Nakasone still has a lot of work ahead of him. Although the

store was crowded with shoppers, ranging from kimono-clad grandmothers to teenagers in jeans, most of the British counters were badly neglected.

The problem seemed to be prices, lack of variety and a sneaky tendency to place the British goods next to British-style goods made in Japan. On the Harrods stall, 10-inch mohair teddy bears bore price tags of around £33, while plastic shopping bags were priced at £10. Nearby, bulky-knit Welsh wool sweaters started at around £80.

A six-hour search failed to turn up any of the advertised Charlotte Bronte pies and most

of the British foods on offer turned out to be little better than a typical selection at Gatwick or Heathrow.

Marks and Spencer knitwear was nowhere to be found. There was no Laura Ashley, no Boots and nothing from Liberty. The Scotch House was well represented, but at steep prices. A single-eply cashmere cardigan was selling for around £130, with simple wool skirts starting at around £80.

Cheek-by-jowl with the Scotch House selection were Aylesbury clothes. A close inspection of the label revealed in small English print: "Tokyo style." Aylesbury's designs were re-

markably British-looking and priced about 10 to 15 per cent less than the real thing.

The more flamboyant type of British designers were also not represented. Conservative Burberry and Daks clothes looked almost dowdy next to the romantic frounces of the Japanese designers nearby. English Paddington bears in the toy department were ignored by children with eyes only for computer games.

Retreating to the leather goods section, many of Britain's best were in evidence. Determined to buy something British, I parted with more than £70 for a Daks bag. "No need to take it from the dis-



play" I told the clerk. "I have to," she said. "That is the only one we have."

U.S. in coal barter deal

BY ALAN SPENCE IN BUCHAREST

THE ROMANIAN Government has agreed to a countertrade deal under which it will import 400,000 tonnes of U.S. coal, worth between \$25m and \$30m (\$21m), in return for various Romanian products including textiles and light industrial goods.

The deal was arranged through Rindalbourne, the London-based East-West trade specialists. A delegation of officials from the company, along with British MPs led by Lord Wilson, the former UK Prime Minister, met Mr Nicolae Ceausescu, the Romanian leader, late last week.

The coal will be shipped

shortly from Mobile, Alabama in cargoes of up to 55,000 tonnes to Romania's expanding steel complex at Galatz, linked by seaway to the Black Sea.

Rindalbourne received the go-ahead to set up the deal in March following an earlier visit by Lord Wilson, a Rindalbourne director. Further substantial coking coal shipments to Romania via the trading company seem likely. The original initiative envisaged deliveries climbing up 180,000 tonnes a month over a two-year period. Negotiations are now under way with a U.S. supplier for a further shipment of 400,000 tonnes.

SHIPPING REPORT

Decline in laid-up tanker tonnage

BY ANDREW FISHER

THE VOLUME of tanker shipping laid-up through lack of business has fallen by some 2m deadweight tons over the past month, according to E. A. Gibson, the London ship-brokers. Sales of ships for demolition have also increased, thus helping to ease the acute tonnage surplus.

Last week was quiet in both the tanker and dry cargo markets. But in spite of the disruption in the supply of Iranian crude oil due to Iranian attacks on the Kharg Island terminal, both enquiry and actual rates for large ships in the Gulf were

maintained at previous levels.

The volume of tankers and combined carriers (able to carry both oil and dry cargoes) laid up in mid-October was down to 48.8m dwt from 50.9m dwt the previous month, Gibson said. Of this, VLCCs (very large crude carriers) accounted for 42.5m dwt against 44.2m.

Part of the fall in idle tonnage stemmed from the bringing back into service of two U.S.-owned tankers and the rest by other ships resuming trading or being sold for scrap. Gibson called the demolition

sales figures encouraging. About 1.5m dwt was sold to breakers' yards over the past month, taking the total of scrap sales so far for 1985 past that for the whole of last year. Royal Dutch Shell has just sold three VLCCs for demolition, with one up for sale and another likely to be offered soon.

Gibson estimated that just over 18m dwt of the current laid-up tonnage would never trade again. This mostly comprised VLCCs, of which a large surplus has existed since the oil crisis—in the 1970s.



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AGFA Agfa

UK NEWS

New miners' union to start recruitment drive

BY JOHN LLOYD, INDUSTRIAL EDITOR

LEADERS of the new Union of Democratic Mineworkers (UDM) begin today to campaign for members in every coalfield in Britain, with the aim of replacing the National Union of Mineworkers (NUM) as the largest miners' union.

The existence of the UDM was ensured over the weekend with the announcement of majority votes in the Nottinghamshire and South Derbyshire coalfields. The 1,500-1,800 members of the Colliery Trades and Allied Workers Association, whose vote will be announced today, are expected to have voted overwhelmingly for the new union.

The vote was a comfortable 73 per cent in Nottingham (8,793 to 3,175) and 51 per cent in South Derbyshire (1,288 to 1,260).

Most miners in Nottingham, the second biggest coalfield in Britain, continued to work during the year-long miners' strike which ended last March.

Mr Roy Lynk, general secretary of the Nottingham area union and secretary designate of the UDM, said yesterday he and his fellow officials would meet leaders of the two other UDM sections this week to plan tactics for bringing in members.

He claimed that some 10,000 miners in Yorkshire - the largest coalfield - would come over and that many thousands in other areas had already expressed interest.

The UDM will send out application forms to all miners who ask for them - though six weeks must elapse to allow for objections to the new union before the Certification Officer, who oversees union mergers, gives the UDM full independent status.

Groups of miners have been quietly formed in all other coalfields who have expressed themselves ready to act as the nuclei of the UDM countrywide. Under the UDM rules, a section of the new union can be formed where 1,000 or more mineworkers in one area come together to affiliate to it.

Mr Arthur Scargill, the NUM president, yesterday met pro-UDM activists from the Nottingham and South Derbyshire coalfields. He said afterwards that the NUM would have branches in every pit in both areas.

He appealed to the Trades Union Congress (TUC) and the Labour Party not to recognise the breakaway union and to the Labour Party to refuse membership to any MP or councillor who joined it.

The decision of the pro-UDM miners comes at a bad time for the TUC, already in crisis because of the refusal of the Amalgamated Union of Engineering Workers to obey the TUC's ban on accepting state aid for ballots.

TUC leaders fear that the new Nottingham union could serve as a focus for an alternative centre to the TUC, one which would be greatly strengthened if the AUEW - with the electricians' union, the EETPU, which has applied for state aid - were suspended or expelled from the TUC.

The TUC's finance and general purposes committee - its "inner cabinet" - will today formally reject the offer from the AUEW to put the case against state aid to its 1m members before a ballot on taking the money next month.

Mr David Bassett, general secretary of the General Municipal and Builders' Union, said the offer was a meaningless one and that the AUEW's actions were "very dangerous."

Mr Bassett's proposal, made over the weekend, to establish a "conciliation commission" to seek to mediate between the two rival miners' unions may attract some support from fellow TUC general councilors. It was rejected, however, by both Mr Lynk and Mr Peter Heathfield, the NUM general secretary, last night.

Pay talks between the National Coal Board and the Nottingham area to which the South Derbyshire area is likely to be attached - are expected to resume this week.

NUM set to make move over Nobis

By Raymond Hughes

THE NATIONAL Union of Mineworkers (NUM) is poised to surmount one of the last obstacles to the removal of the High Court-appointed receiver who controls its funds.

The union is considering giving an undertaking not to sue the Luxembourg bank that handed over £4.8m of NUM funds to the receiver earlier this year.

The money had been deposited with Nobis-Finanz International when the NUM transferred £8.5m abroad to try to avoid court sequestration of its assets during the miners' strike.

As a condition of the money being released to him the receiver, Mr Michael Arnold of accountants Arthur Young, had to indemnify Nobis against the possibility of legal action against it by the union.

As a result £4m of the money has remained frozen in a UK bank to cover that indemnity.

The union will renew its efforts today to persuade the court to end the receivership. It will seek the end of the sequestration at a hearing fixed for November 14.

Tony Morton reports how a Scottish company won a new lease of life Carpet maker picked up off the floor

THREE YEARS ago, with the British carpet industry in desperate trouble, Mr John Logue bought BMK, one of the most famous names in the business, from the receiver for £4m.

It was in many ways an act of faith. Mr Logue knew nothing about carpets (he subsequently took a three-day crash course in the subject at Kidderminster, in the English Midlands) and he had entered the industry at a time when cheap imports from Belgium and the U.S. were flooding in.

"My bank manager thought I was bonkers," he says. Belgian prices were almost 40 per cent lower than those from British suppliers, the British workforce had fallen from 32,100 in 1978 to 17,900 at the end of 1982 and home sales by British manufacturers had dropped from 140m square metres in 1979 to 112m square metres three years later.

"It was a bad time to enter the industry," Mr Logue admits. "The position in Kidderminster (central Scotland), home of BMK, was worse. There was a deep sense of shock within the company that it should have fallen so badly and gone into receivership. Commercially, it was disintegrating."

"But getting in at the bottom has its advantages. The situation can only get better. And I was helped by a realisation that the old practices, which had helped to bring the company low, could not continue."

Mr Logue's act of faith has been amply justified. Three and a half years on BMK has doubled turn-

over to £20m, turned the losses of £400,000 a month into a profit of £200,000 this financial year, invested in new machinery, created a strong team and now sells a third of its output of woven carpets abroad.

If this progress continues Mr Logue hopes that within three years he will be in a position to come back to the market for a public quote.

"The Achilles heel," Mr Logue says, "lay in production costs. Wool travelled 10 miles around the place from the time arrived to the moment it was shipped out as a carpet. There were six plants in the town and the handling costs were enormous."

As part of a rationalisation plan Mr Logue has concentrated production in one large riverside complex and a small part of a second building which only handles the production of felt. Some 500,000 square feet of space has been demolished and a sale-and-leaseback with the Scottish Development Agency allowed the company to raise £750,000.

Mr Logue admits he was helped by the work undertaken by the receiver before his arrival. The one-time workforce of 1,500 had been pared to 180 and stocks of raw materials and work-in-progress greatly reduced. BMK, once one of the largest employers in the town, had been reduced to the status of just another medium-sized concern.

"One of the other flaws of the original corporate structure," Mr Logue says, "is that the company

was far too vertical. It was trying to do too many things for its own management abilities."

"It spun yarn, bleached, dyed, finished and wove carpets. This was too much. The receiver had already sold the jute-spinning and towel-producing company, which was a start."

Mr Logue's philosophy is to design, weave and sell carpets. Everything else is peripheral. This approach came as a bit of a shock to those still here. They had been brought up on different values. But they have seen it work and that has been sufficient justification."

The principle has worked admirably. BMK came back into profit by the autumn of 1982 and with the exception of the occasional month it has remained in the black ever since. As sales have increased so has the workforce. It now employs around 440 people and Mr Logue is looking for £2m a year profit in two to three years' time.

Why should Mr Logue, a self-confessed beginner in carpets, have staked all on a failed company at a time of acute depression?

"Basically, I had time on my hands. I had recently been divorced and another Scottish company with which I was associated was doing nicely."

When he saw an advertisement for BMK in the Financial Times, placed by the receiver, it was just the sort of challenge he was looking for.

He firmly believes the future in carpets lies in style and design.

"There was always a design team here but it was producing pretty routine things. It has been beefed up and is the best in the business."

That team, which he shows off with pride, has enabled the company to win orders all round the world.

BMK's springing lamb symbol is to be seen on carpets adorning Marks & Spencer stores in Bannockburn and Oxford.

Others include Hyatt hotels in Indonesia and Tehran, a government building in Helsinki, the casino at Menton, southern France, the Royal Caribbean Line's four cruise ships and the World Trade Centre in Hong Kong.

"The most important step after putting the company back on its feet was an export conference late in 1982," he says. "As a result, we started putting together the marketing tools necessary for overseas sales. From there we appointed a manager for the U.S. East coast and then a strong U.S. sales force."

"Export success does not come overnight and it took quite a time for the U.S. to come good. But this year it has really started to go well. We have only tickled the U.S. so far. It is such a big market. Perhaps 97 per cent of it concerns carpets made from man-made fibres. There may only be 8 per cent left for wool, an expensive manufacturing such as ours but it can be a very profitable 3 per cent and we intend to get some of it."

UK's wool clip, Page 8

Robots will lead to 'significant' job cuts

BY DAVID THOMAS, LABOUR STAFF

MOST EXPERTS on robotics think the increased use of robots in British industry will lead to significant job cuts by the end of the century.

They also believe that employers should take employees into their confidence at every stage when introducing robots.

Those are some of the main findings of a survey, carried out by the Institute of Personnel Management with Industrial Relations Consultants, a U.S. consultancy that has conducted a similar survey in the U.S.

In Britain, 113 people in business, universities and research institutions responded. More than half were engineers or computer scientists and two thirds worked in industry.

Defining robotics broadly to include both robots and computer integrated manufacturing, the British

and U.S. respondents agreed that robotics would be introduced only gradually into manufacturing, but that its use would be widespread by 2000.

Most respondents in both countries believed that workers displaced by robotics could be retrained and re-employed within their company. However, the American survey emphasised that the main responsibility for this retraining rested with industry, while the British survey envisaged a responsibility shared between industry, the Government and the educational system.

Three quarters of the British respondents think the educational system is not geared to producing people with the skills needed for robotics - a more pessimistic response than that recorded in the U.S.

Liverpool to withdraw redundancy notices

BY IAN HAMILTON FAZEY

LEADERS of Liverpool's Labour-controlled city council yesterday agreed to withdraw the dismissal notices which were issued to 31,000 employees last month as a result of the city's budget crisis.

Council and union leaders agreed to set up an immediate inquiry into what options were available to solve the crisis. This will be conducted by the treasurers of the Greater London council, Sheffield city council, Camden borough council in London and the under-secretary for finance at the Association of Metropolitan Authorities.

The idea of the inquiry was put to the council on Saturday by Mr David Blunkett, leader of Sheffield council. It will work on the problem urgently. Liverpool leaders warned yesterday that the city could guarantee to pay wages only for another three weeks.

Withdrawal of the redundancy notices and the agreement to the inquiry has defused a potentially explosive situation for Mr Neil Kinnock, the Labour Party leader, who is visiting Liverpool today.

At the recent Labour conference Mr Kinnock had attacked Liverpool's strategy of setting an illegal deficit budget.

Liverpool's leaders were adamant yesterday that certain options such as cuts in jobs and services, rate rises and capitalisation of some current spending - would not be considered as a means of bringing the budget back into balance. They believe that the solution should be more money from the Government.

Mr John Edmonds, general secretary-elect of the General Municipal, Trades Union, stressed that every possible solution would be looked at so as not to tie the hands of the inquiry team. Politically unacceptable options could be struck out afterwards, he said.

Midland staff in strike vote

By Our Labour Staff

MEMBERS of the Banking, Insurance and Finance Union (BIFU) in the Midland Bank's computer centres and other technical areas have voted in favour of a series of one-day strikes. This is in protest at the Midland's decision to reduce the retirement age for men from 65 to 60 - the same as for women - at the start of next year.

Bifu has campaigned for a reduction in the male retirement age, but is concerned about the position of short-service staff who may be forced to retire without having adequate pension entitlements at Midland. (A state pension is not payable to men until the age of 65.) The union said yesterday that some men would have to retire with pensions of only £1,400 a year.

Bifu says other big banks have negotiated a reduction in retirement age which allows men the option to work until 65.

Distillers

AN ARTICLE on page 4 of Saturday's Financial Times said that Distillers "looks as if it is about to be taken over by the Argyll Group." This should have read that Distillers "looks as if it is about to face a takeover bid from Argyll."

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UK NEWS

Industry funds, staff wanted for space centre

BY PETER MARSH

THE GOVERNMENT is expecting industry to provide some of the personnel and funding for Britain's national space centre. The centre is due to be announced in the next few weeks and will co-ordinate the country's activities in space science and technology.

This approach has led to a mixed reaction from Britain's aerospace and electronics companies. These companies are the main beneficiaries of research and development contracts arising out of the country's space budget, which runs at about £50m a year.

Some companies say industry's involvement should increase the commercial relevance of the space centre. Others are unhappy that the arrangement could dilute its authority and put a strain on their own resources.

Industry is dissatisfied with the Government's slowness in formulating detailed plans for the new authority.

Mr Geoffrey Pattie, the Minister for Information Technology, said in January he was setting up the centre to knit together the work of government departments responsible for space. These are the Department of Trade and Industry (DTI), the Ministry of Defence and the Science and Engineering Research Council.

At that time, officials were confident the details would be finalised by the summer. Problems in deciding on the funding for the centre and how it will be run have led to delays.

Mr Tom Mayer, chairman of the UK Industrial Space Committee and chairman of Thorn EMI Electronics, said he was disappointed at the slow rate of progress.

He said that expecting industry

to provide some of the resources and manpower would not necessarily be an objection as this could lead to an organisation with a greater understanding of commercial issues.

Other industry executives, who asked not to be named, said the approach could put an unfair financial burden on companies. If the centre were to be staffed with a large number of seconded from companies, it could lead to favouritism when handing out commercial contracts.

The arrangement could also reduce the authority of the organisation. A centre which relied heavily on industry for money and people would fail to be seen as independent and could be manipulated by pressure groups from big companies.

Sir Robin Nicholson, the Government's scientific adviser, sent a report to ministers on the setting up of the centre several months ago. It emphasised the need to involve industry on a "participative" basis.

This stance fits in with the Government's views that industry should be increasingly associated with, and to some extent financially responsible for, state-organised research activities.

Mr Pattie and other ministers appear to have still not decided on their final approach. However, the centre is likely to be in London, staffed by a secretariat, and independent of both the Trade and Industry Department and the Defence Ministry.

The centre would use the technical facilities of two government-run research establishments, the Defence Ministry's Royal Aircraft Establishment at Farnborough and the Rutherford Appleton Laboratory next to Oxford.

Rolls Royce may relaunch propellers

ROLLS-ROYCE'S design for a new small advanced propeller engine has been so successful that the company has started design work that might re-establish Rolls-Royce as a manufacturer of the highest-powered civil aero engines.

The UK government-owned company has started work on propeller engines to replace the most powerful jet engines used on the big three international aero engine companies to admit that work is underway.

The company's programme suggests that it might require £100m of capital spending just as the Government is preparing to privatise it before the next general election.

A decision on an engine demonstrator programme might be taken in two to three years, the company said.

RR puts the cost of basic research for its advanced propeller engines at around £10m. Up to £100m will be needed for full-scale testing of the engine. Full production is likely to cost over £10m.

The go-ahead for design studies on high-powered propeller engines for the jumbo jet market gives RR an apparent lead over its U.S. engine rivals, General Electric and Pratt & Whitney.

GE, Pratt & Whitney and RR are working separately to reintroduce

British and U.S. aviation companies are considering the re-introduction of propeller-driven engines. Lynton McLain reports on Rolls-Royce's plan which would cost more than £1bn to implement.

small to medium-powered propeller engines to power 150-seat aircraft in the 1990s in place of conventional jet engines. The U.S. companies have not announced plans for high-powered propeller engines for the jumbo jet and Airbus market.

GE is ahead of its rivals in the production of the advanced propeller engines suitable for 150-seat aircraft but not jumbo aircraft. It is to be flight-tested in the second half of next year, when RR will only have started ground-testing the gearbox technology for its competing design.

The engine companies have identified reductions in fuel consumption of at least 20 to 25 per cent for such advanced propeller engines, compared with existing jet engines. "These improvements look attainable," RR said.

GE puts the potential fuel saving with advanced propeller engines much higher, at 40 to 60 per cent.

The companies see the return of the propeller as a way of making

large-scale improvements in the face of the rapidly diminishing returns from development of existing jet engines. The company believes that the potential of jet engines is declining.

"You are never going to achieve fuel-efficiency improvements of 20 per cent to 25 per cent with existing engines without doing something dramatic,"

"These fuel savings are viable with the advanced propeller engine, but it is impractical to build a bigger, advanced contra-rotating propeller engine for the largest airliners," RR said.

The slow-moving 13 to 14-foot diameter propeller blades, half the height of a small house, would be in danger of hitting the runway if mounted under the wings of a jumbo jet.

Smaller propellers might be a solution, but they would spin faster and create more noise.

RR's solution for high-powered propeller engines is to design a cir-

cular duct around the shorter propeller blades. That would cut noise and act as a safety barrier. The engine would have no gearbox, making it similar to the gearless, but unducted, engine produced by GE.

The RR studies of a new, high-powered engine with propellers comes after its poor performance in recent years forced it to stop developing its RB-211 series to the highest powers available from its U.S. rivals. RR stopped competing at the highest-thrust end of the engine market.

RR subsequently joined GE to share the U.S. company's technology on its CP6-BOC3 engine, with a thrust up to 62,500 lb making it one of the most powerful jet engines. In return, RR agreed to share its technology on its RB 211-535 E4 engine with 40,100 lb thrust.

RR was already in partnership with Pratt & Whitney as a partner in International Aero Engines on the V2500 advanced medium-jet engine for 150-seat airliners.

The £1bn cost of developing a type of advanced propeller engine for production might be prohibitive for one company.

RR is considering developing two types of such engines to cover the full range of short to medium and long-range civil airliners and has not ruled out further collaboration.

Air transport growth reveals need for more pilots

BY MICHAEL DONNE, AEROSPACE CORRESPONDENT

DEMAND for airline pilots in civil air transport, including Dan-Air, which said that of 65 temporary pilots taken on this year to meet traffic growth, 45 had been given permanent appointments and 30 more would be recruited this winter.

Other UK airlines seeking pilots include Brymon Airways, Lomax, Monarch, Cathay Pacific, and Bristow Helicopters.

Mr Colin Beckwith, general manager of the Oxford Air Training School, said that airlines would need up to 550 experi-

enced pilots during the next two years. The pilots would come from various sources, including those working in the business and general aviation sectors, but many airlines would have to "poach" from others to get what they need, he said.

During the recession of the early 1980s, the UK pilot force dropped from about 7,000 to around 5,000. The figure is now picking up again, and if expansion in UK air transport continues, there could be a shortage of pilots by the end of this decade.

The situation is partly caused by the number of pilots who will soon retire and need to be replaced.

No UK airline has trained pilots from scratch since the late 1970s. It takes several years to produce a fully qualified "line pilot" capable of flying jet airliners.

British Airways expects to start such training again in the near future, but the new pilots will not be available for line duty until about 1990.

Business loan scheme may be relaunched

BY WILLIAM DAWKINS

PROPOSALS to inject fresh life into the Government's ailing Loan Guarantee Scheme (LGS) will reach the desk of Mr David Trippier, the minister with responsibility for 'small businesses' within the next fortnight.

Mr Trippier and Lord Young, the Employment Secretary, have requested the Union of Independent Companies (UIC) a lobby group involved in drawing up the original scheme in July 1981, to produce plans for a new LGS structure.

The UIC's report will propose that the LGS should have its own separate budget which will be allocated in tranches to banks approved to disburse government-guaranteed loans to small businesses. The banks will then form LGS portfolios which will be marketable to pension funds and other institutional investors, in much the same way that venture capital funds are now.

Under the present arrangement the Government places a £50m ceiling on the volume of lending it is prepared to guarantee in a year, but

LGS loans form part of the banks' general business portfolios.

The UIC plan will be considered for the Department of Employment's submission for the budget next spring and is modelled on the government-guaranteed loan portfolios marketed by U.S. Small Business Investment Companies.

Mr Bill Poole, UIC President, says the proposal aims to reduce larger than expected LGS losses by introducing more direct competition between the banks in small business lending.

Ministers are concerned about the performance of the LGS, a measure designed to help small businesses formerly denied access to normal bank lending. It was intended to finance itself by charging a premium to borrowers, but in fact has cost taxpayers more than £72m.

Demand for LGS borrowing has been slipping since July last year, when the Government cut the proportion of a small business loan it is prepared to guarantee from 80 per cent to 70 per cent of the total.

Labour Party plans attack on S. Africa policy

By Peter Riddell, Political Editor

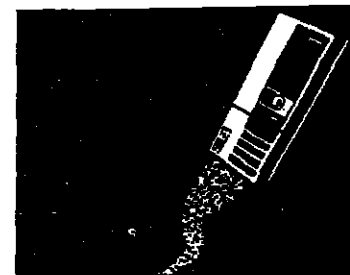
THE LABOUR Party intends to attack the Government this week over its policies towards South Africa and the inner cities when the House of Commons returns from its three-month summer recess.

The Commons returns to session this afternoon and will meet for about 10 days to complete business left over from the 1984-85 session. The legislative programme for the new session will be outlined on November 6.

Labour has chosen to debate South Africa on Wednesday, with Mr Denis Healey, the shadow Foreign Secretary, expected to argue that Mrs Thatcher's approach has isolated Britain internationally.

Later on Wednesday, Mr Gerald Kaufman, the shadow Home Secretary, will argue that the Government's approach to urban aid and policing has led to the current problems.

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UK NEWS

Retailers disappointed
by September sales

BY ROBIN PAULEY

SALES IN shops fell below expectations during September after an exceptionally buoyant August, but retailers expect some improvement during October, according to the latest survey of the distributive industry by the Confederation of British Industry (CBI) and the Financial Times.

Mr John Salisse, chairman of the CBI distributive trades survey panel, said: "Sales volumes were still well above last year's levels and retailers expect sales to increase faster this month. Grocers and retailers of household goods, including cookers, fridges, and television sets, reported particularly good business, but shoe shops' sales were lower than in September 1984."

Other sectors that reported sales volumes lower than a year ago are confectionery, tobacco and newspaper shops, builders' merchants, farm machinery dealers and industrial materials wholesalers. Farm machinery dealers continue to expect lower sales than in 1984 because they have been especially badly affected by this year's poor harvest.

"Some of the smaller retailers, the corner shops, are still not doing as well as the larger multiple shops

and chain stores," Mr Salisse added.

Of the 308 respondents in the retailing industry, a balance of 67 per cent had expected increased sales in September, but only 45 per cent reported that the expected increase had materialised. A balance of 53 per cent is expecting increased sales in October.

A total of 47 per cent expected to increase the volume of orders from suppliers in September, but only 37 per cent actually did so. A balance of 42 per cent is expecting to increase orders during October.

Wholesalers are expecting the reported levels of sales in September to be held in October, with 44 per cent hoping to do better than they did in October last year. That is the lowest balance expecting an increase since April.

Both retailers and wholesalers continue to report that their stock levels are too high in relation to their expected sales, although the overstocking seems to have eased a little in September compared with August.

As expected, the growth in motor traders' sales volume slowed in September after the predictably high sales levels in August, the first

month of the new registration letter.

A balance of 28 per cent of the motor traders reported higher sales in September than in September 1984 - about the same proportion as expected sales to increase. A balance of only 5 per cent expect sales growth in October to be more than October 1984.

The volume of orders to motor-vehicle suppliers also showed slower growth in September, with the balance reporting increased orders falling to 8 per cent, compared with 19 per cent in August. A balance of 10 per cent expect to place a smaller volume of orders in October than they placed in September.

There is evidence of substantial overstocking in the motor trades sector with a third of respondents saying their volume of stocks is too high in relation to sales and not one saying the stock level is too low.

A total of 580 companies in the distributive industry took part in the survey. Detailed results of the FT-CBI distributive trades survey for end-September 1985 are available from the CBI's Economic Trends Department, Centre Point, 103 New Oxford Street, London WC1A 1DU.

Britain
heads for
record
wool clip

By Anthony Moreton

BRITAIN IS expected to produce a record wool clip of about 58,000 tonnes this year, a rise of 5½ per cent on 1984. Australia is also expected to achieve a record; the clip is forecast to rise by 1 per cent to 797,000 tonnes.

The Commonwealth Secretariat, which monitors wool movements, gives a warning, however, that Australia, which accounts for a large part of the finer wools that go into the production of clothes, would have to come to terms with a reduced rate of increase in output.

This year's clip, which should be the largest since 1971-72, will be only 1 per cent higher than last year, when the rise was 8 per cent.

In New Zealand, largest source of wool for carpets, the forecast clip of 500,000 tonnes is likely to be the lowest for six seasons and 3½ per cent below last year's.

The secretariat also sounds a pessimistic note on the level of activity in the industry, suggesting that the cyclical peak may have been reached. Wool textile manufacturing in the 10 leading countries rose by 1½ per cent in the first quarter of 1985.

Labour claims value
of asset sales
greatly understated

BY PETER RIDDELL, POLITICAL EDITOR

MORE THAN 13 per cent of public expenditure was last year financed from "unsustainable" sales of public sector assets and North Sea oil and gas revenues, Mr Tony Blair, a Labour Party spokesman on Treasury matters, claims in an analysis of the Government's accounts.

In a dossier released at the weekend compiled from official information, Mr Blair argues that the separate published figures for asset disposals substantially understate the amount which the Government is receiving in various ways from the asset sales programme.

For instance, in 1984-85, in addition to just over £2bn identified in the special sales of assets programme, some £2.54bn was received from sales of land and buildings, primarily council housing. This item is officially treated as negative expenditure and deducted from programme totals.

Some £430m was raised by nationalised industries from the sales of their assets such as the Wych Farm oilfield in Dorset by British Gas. These figures are reflected in an adjustment of these industries' external financing limits.

In total, these assets sales amounted to just over £5bn in

1984-85 compared with just under £4bn in the previous financial year.

In addition, some £12.5bn was received from the gas levy. Together with asset sales, this was equivalent to 13.1 per cent of public spending, up from 10.7 per cent in the previous year.

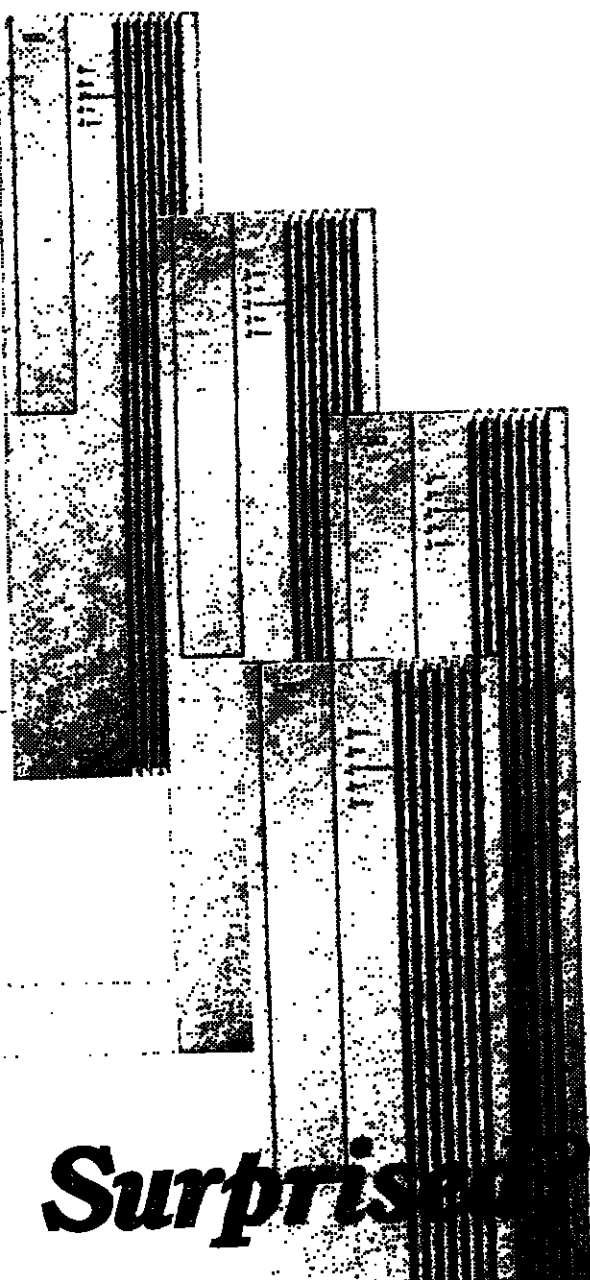
Mr Blair suggests the scale of true asset sales over the next two years could be "colossal."

He estimates that in its first six years of the Conservative Government some £82bn was received from these two sources. "Because many assets, like British Telecom, have been sold for far less than they were worth, the deterioration in the underlying balance sheet of the public sector has been much worse. With North Sea revenues now facing decline, the Government will go on the ramp, stripping assets from wherever it can."

The Treasury's decision to treat one-off sales of public sector assets as negative items has been persistently questioned and criticised by the Treasury and Civil Service committee of the House of Commons.

The Government's view has been that it is reasonable to treat such disposals as negative expenditure

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BY ERIC SHORT

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TECHNOLOGY

Geostar aims to circle the globe

LORRIES carrying spent nuclear fuel between atomic energy establishments in the U.S. are to be tracked from next year with a novel space-based message system which should improve management and keep a check on accidents.

Westinghouse, which operates the vehicles on behalf of the U.S. Government, has a contract with Geostar, a company in Princeton, New Jersey, which will operate a satellite message service from early in 1988. It will be extended to a navigation system a year later.

Radio signals from a small box of hardware in the road vehicles will be sent to a control station via a transponder on a satellite operated by GTE, the U.S. telecommunications company, in geostationary orbit 36,000 km above the earth. The vehicle is due to enter space on board an Ariane rocket early next year.

The hardware on the lorry could be linked, for instance, to equipment that monitors the condition of cargo to check if it has deteriorated or been tampered with. Such a system should enable Westinghouse managers to monitor the vehicles without asking drivers to call in periodically by telephone or by conventional mobile radio systems.

Over the next few years, Geostar hopes to develop the service to cover not just the U.S. but other parts of the world as well. By the early 1990s, Mr Peter Watkins, Geostar's director of European development, thinks the com-

Peter Marsh reports on rival U.S. plans for extending the scope and range of satellite navigation systems

pany could have 6m customers, including individual hikers as well as operators of rail or road fleets, who would be tuning into navigational signals from the heavens.

The service, which could also be used as a satellite-based navigation system for aeroplanes, would compete with the \$60m Global Positioning System, a satellite-navigation network being set up by the U.S. Defence Department, which will also be available to civilians. According to Geostar, however, the equipment in its system will be a lot less expensive and should open up more applications.

In 1987, Geostar plans to have in orbit a second transponder package to follow the one due to enter space next year. Using signals beamed from a lorry or car to both transponders, ground computers will then be able to work out the positions of vehicles linked up by the system.

The service will enable operators of vehicle fleets to monitor the conditions or cargo

and know precisely where they are every minute of the day. The system could also provide a useful anti-theft service for car owners. A radio transceiver built into the bodywork of a vehicle could continually relay messages via spacecraft to a ground station, so warning the owner if the car is moved without permission.

Mr Watkins says that as the service grows during the 1990s, manufacturers of expensive cars will probably incorporate his company's satellite-communication packages in their products as a matter of course, in the same way as they now put in stereo systems.

Geostar also has its sights on helping railway corporations. With Guilford Transportation, a company which operates railways in the north-eastern U.S., Geostar has set up a joint venture called Railstar to market a rail navigation service. Using the satellite data, Mr Watkins says, this could specify the position of a rail truck to within 1-7 metres and so enable an operator to tell

which of two parallel tracks a cargo was on.

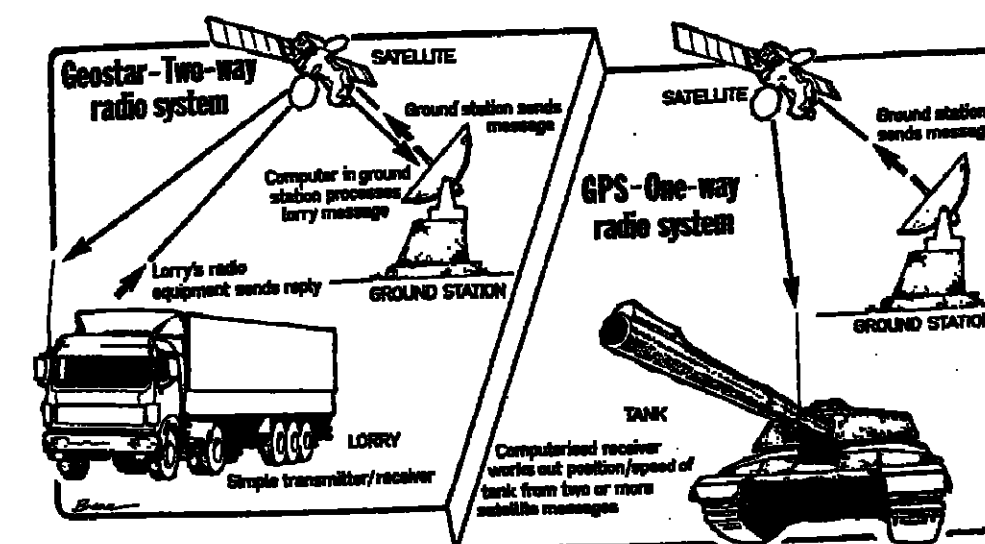
Geostar was founded in 1982 by Dr Gerard O'Neill, a space enthusiast at Princeton University. It was raised \$11m from private backers in the U.S. This has enabled the company to conduct experiments with radio navigation, for instance a series of tests using transponders located not on satellites but on mountain tops in the U.S.

Discussions are in hand with large companies on a plan to obtain the further \$60m-\$80m needed for investment in spacecraft and ground stations later in the 1980s.

According to Geostar's plans, the two transponder packages which it hopes to have in space by 1987 will be supplemented in 1990 by a purpose-built spacecraft. By 1992 it plans to cover the whole of the U.S. with two geostationary satellites, plus a further orbiting craft which acts as a spare.

The second transponder package — and all the purpose-built satellites — will both transmit and receive messages. A ground station could thus send a burst of digital code to a lorry via the space hardware instructing the package on the vehicle to send a message. So operators would be able to check the position of vehicles at set times during the day.

A stumbling block to Geostar's plans was removed in July when the U.S. Federal Communications Commission set aside two sets of frequencies



for use in a new radio-determination satellite service.

The frequencies are in the 1.610-1.626 GHz and 2.485-2.500 GHz bands, supplemented by an allocation in the 5 GHz band to be used as a communications link between satellites and ground stations.

Geostar's biggest competitor may prove to be the Defence Department's Global Positioning System, which will provide information about position to within 15 metres. The 15-satellite system will be used mostly by soldiers with small satellite communication packs and on tanks, airmen and naval officers.

By a special dispensation, civilians will also be allowed access to the system, though they will lack the secure radio

codes which will provide the most precise positional information (this page September 24).

The Geostar and GPS systems use a different approach which should theoretically make user equipment for the former less expensive. In the military system, radio equipment held by a soldier, for instance, will simply tune into messages transmitted from two or more satellites. The hardware, which will not be able to transmit, will use the satellite data to compute a position with sophisticated electronics.

In the Geostar system, the user's equipment first picks up the satellite signal and then transmits a second message back to the ground station using the satellite as a relay. The ground station, which will incorporate

some extremely advanced computers, is responsible for the processing steps, while the user hardware is relatively unsophisticated.

This "one way only" arrangement is forced on the military establishment. Signals from user equipment that are required as part of the positioning process are anathema. They could provide a source of signals for enemy radio officers and give away the positions of the other side.

Necessarily, however, GPS hardware will be very expensive. By about 1990, manufacturers are talking about a cost of \$5,000-\$10,000 or so for a GPS user set while Geostar hopes the cost of its equipment will be no more than about \$700.

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Interpreter will print as often as once every half hour or as little as once a week. Extra channels on the meter allow the user to select what meters are to be similarly recorded. Interpreter costs \$795. More on 0952 67287.

Asian move to make hepatitis B vaccine

BY STEPHANE YANCHINSKI

A FLEDGLING biotechnology company in Singapore is working out details of an agreement which could affect the lives of millions of people throughout Asia. Singapore Biotechnology is negotiating with the U.S. company Merck, Sharp and Dohme for an exclusive licence to manufacture a genetically engineered vaccine against hepatitis B, a serious form of jaundice which is common in Asia and has been linked to liver cancer.

Singapore Biotechnology's plans also call for the construction of a production plant estimated to cost at least \$20m. In 1984 the economic ministers of the Association of the South-East Asian Nations agreed that such a plant should be set up as an Asian industrial project. This entitled it to financial support from all the Asian countries, and that support took the form of equity investment in Singapore Biotechnology.

Construction was halted when newer methods for manufacturing the vaccine based on genetic engineering looked likely to supersede existing technology, also perfected by Merck, and based on extracting the active principle for the vaccine from infected human blood.

The production of the vaccine is only the latest phase in a massive campaign in Asiatic countries such as Singapore, Japan, China and Taiwan to detect and control the disease through widespread screening programmes and education. According to the World Health Organisation a cheap, effective vaccine that even the poorest countries can afford is essential to eradicating the disease and the liver cancer that seems to go with it.

Liver cancer is one of the 10 most common cancers in the world, and one of the most prevalent in the developing countries. A meeting of WHO

early symptoms are fever, chills and generalised weakness followed by anorexia, nausea and vomiting. It may lead to chronic liver disease, and of these chronic sufferers, 80 per cent develop liver cancer.

More than 315m people carry the disease worldwide and more than half of these live in the Pacific region, providing a large reservoir of infection.

The disease is often passed on by carrier mothers to their newborn child. Studies in China and Japan show that injection of a vaccine within 48 hours of

'The factory will be the first outside Japan to make genetically engineered products in Asia'

birth can prevent the carrier state in over 90 per cent of babies. But such mass immunisation programmes will involve vaccinating millions of infants within the critical first 48 hours of life, and thus large quantities of vaccine.

Merck already sells an effective vaccine prepared from the infected blood of U.S. donors, but supplies of human blood are limited and each batch must be tested over many months on chimpanzees which cost US\$6,000 each. This makes Merck's product expensive at around US\$ 100 a dose, and three are usually needed to complete treatment.

The strategy for making the new vaccine is to insert the gene coding for the active principle into the genetic material of a yeast. The yeast "host" cells then obey the gene's instructions, and make large quantities of the protein which can be harvested from the cell.

Merck's genetically engineered vaccine Hepvax II is already undergoing clinical trials in centres throughout Europe, the U.S. and South-East Asia, but other companies are in hot pursuit, led by Burroughs Wellcome in Britain, the Swiss-U.S. genetic engineering firm Biogen in collaboration with the Japanese partner Green Cross, and the Belgian company SRI. Taiwan has signed an agreement with Institut Pasteur Production, the commercial arm of the famous Paris-based research organisation.

'More than half the world's 315 million carriers of the disease live in the Pacific region'

experts said in 1983 that "unique opportunities exist for the first time to prevent a frequent cancer with vaccination." Hepatitis B is one of a family of liver diseases characterised by severe jaundice. Its

Mentor Graphics offers design aid for engineers

MENTOR GRAPHICS, the Oregon-based supplier of computer-aided engineering (CAE) workstations for electronics design, has launched a "hardware accelerator" which greatly speeds up design work.

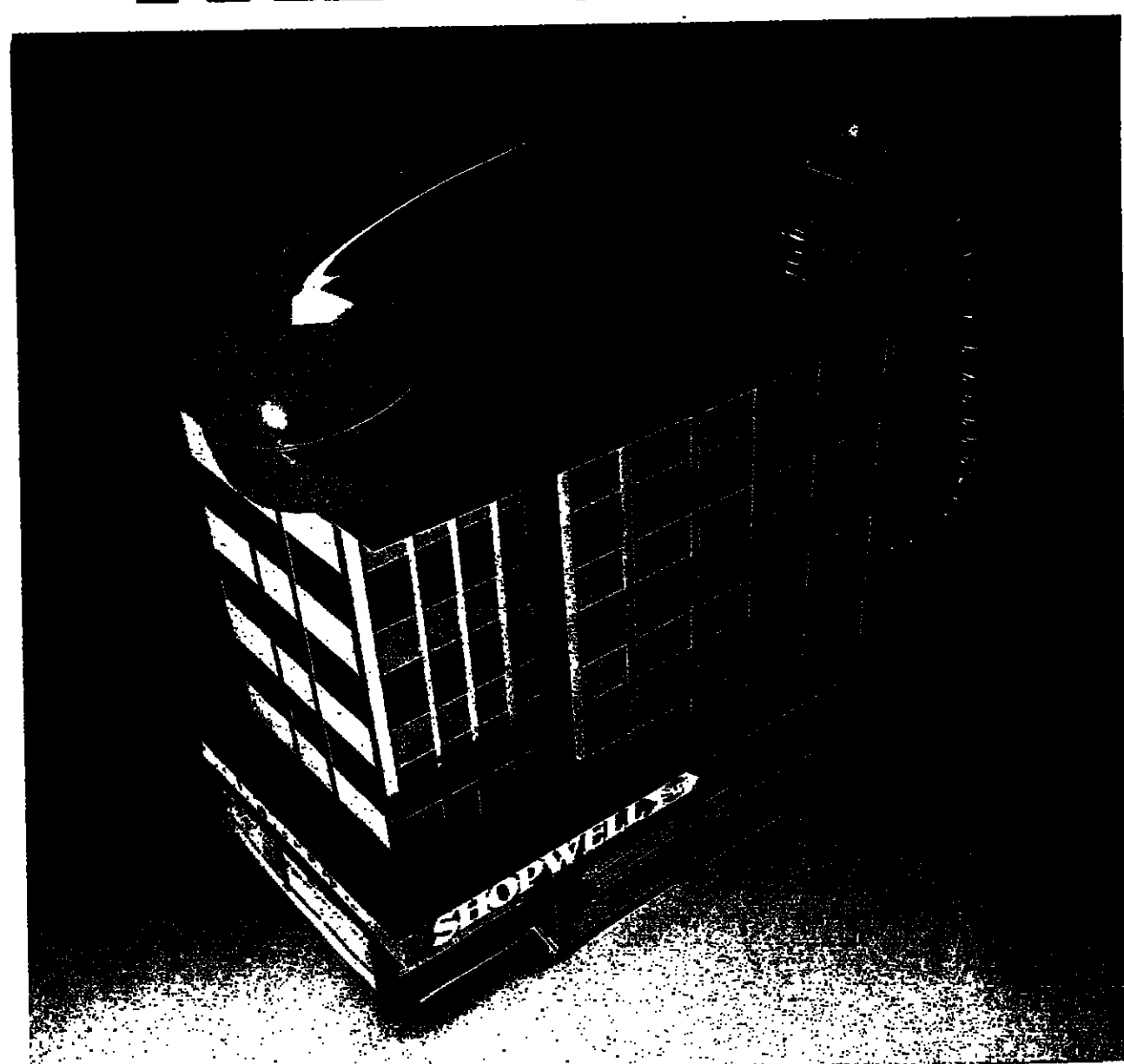
Called Compute Engine, it is an add-on processor which uses the latest techniques to produce a throughput of up to 10m instructions a second. A normal 32-bit workstation throughput is about one million instructions a second.

Performance on some CAE applications can be 100 times faster, says Mentor. Compute Engine can also be applied to any or all the CAE tasks such as circuit simulation, component placement and track routing. Previous accelerators have been

limited to a specific CAE task. Design with the complexity of a 32-bit microprocessor (up to 0.5m gates) can be simulated directly on the workstation without invoking a mainframe computer.

In the case of physical layout of the chip, tasks such as design rule checking, placement and routing can be run five to 20 times faster than on the Apollo-based Mentor workstation.

Compute Engine costs \$25,500, and consists of a processor and a four megabyte memory board which plug into the Apollo DX 550 system 550 workstation, together with new software. The top end, 20 megabyte version costs \$47,500. More on 0244 45222.



SHOP HEATING

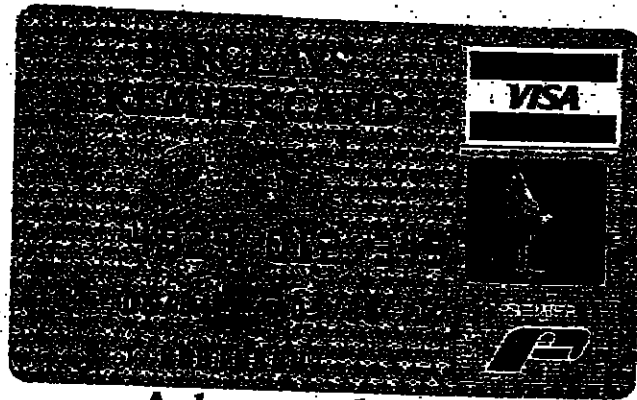
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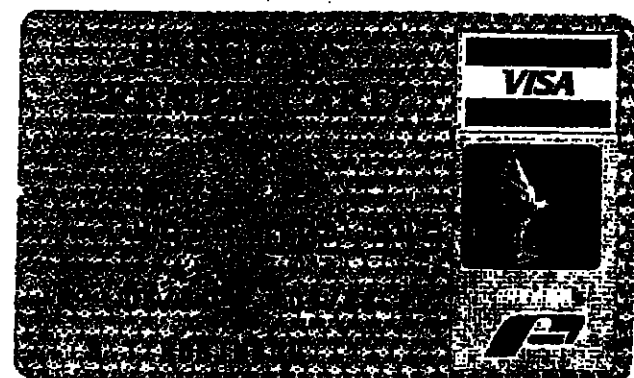
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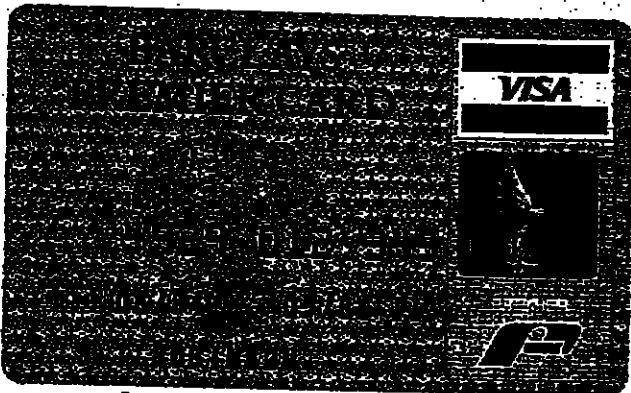
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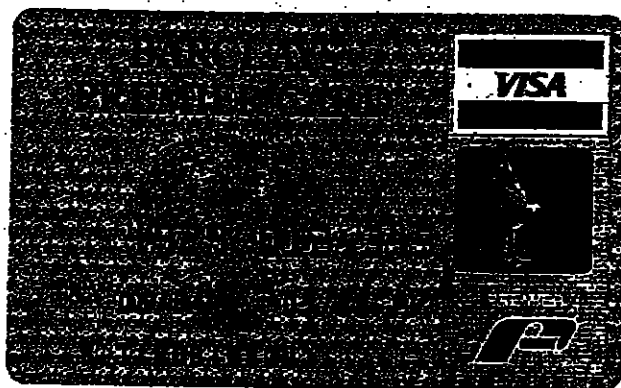
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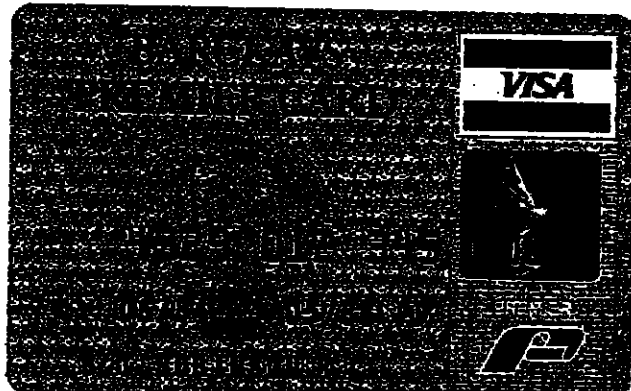
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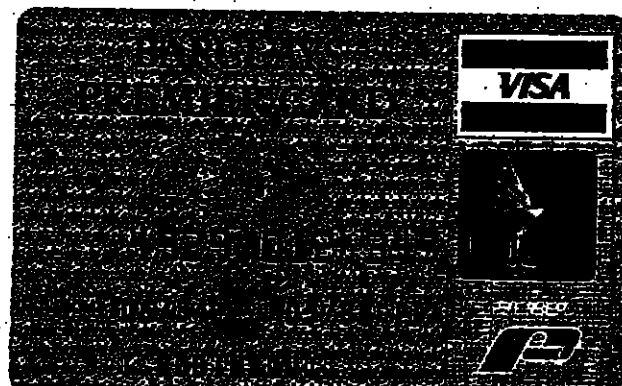
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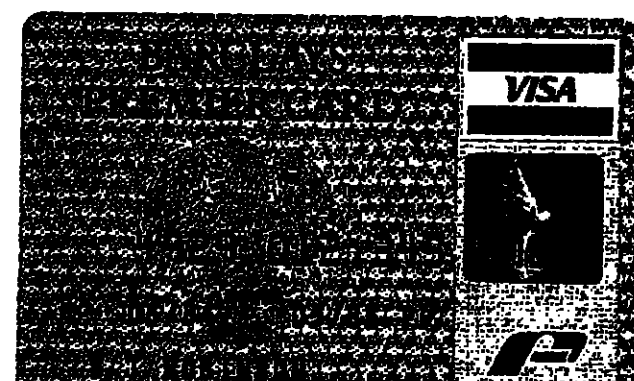
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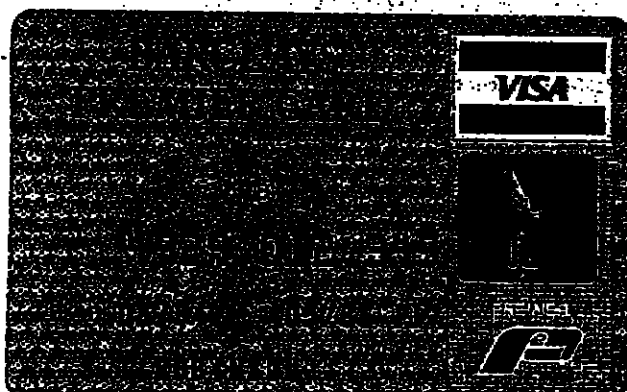
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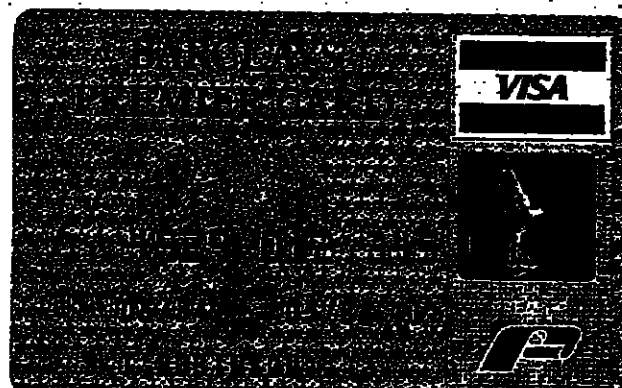
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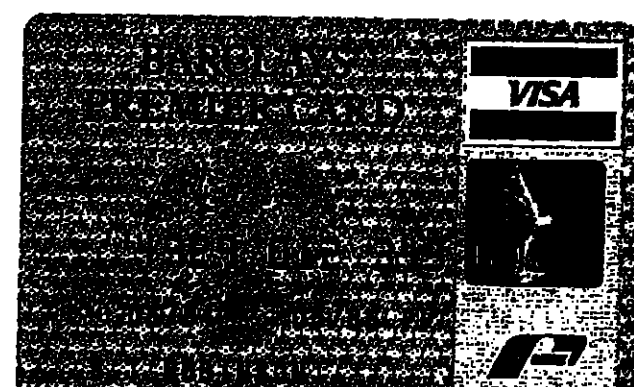
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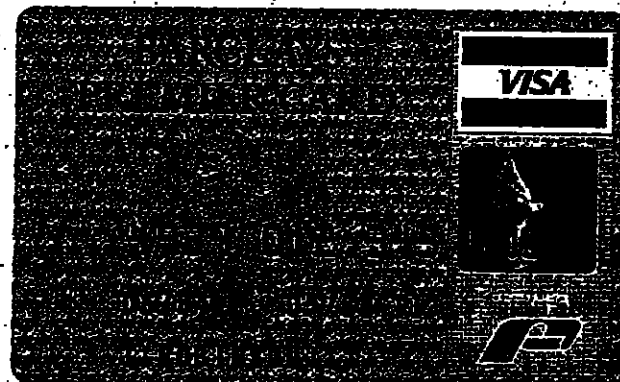
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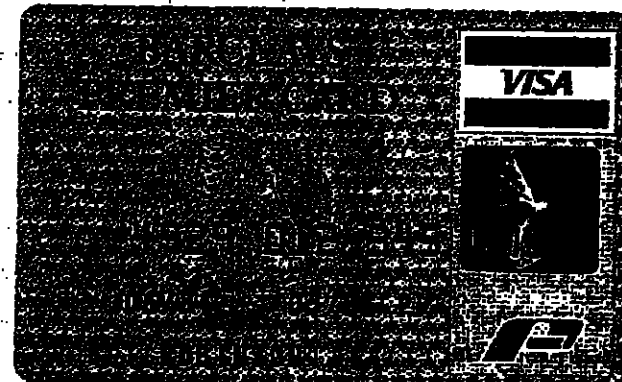
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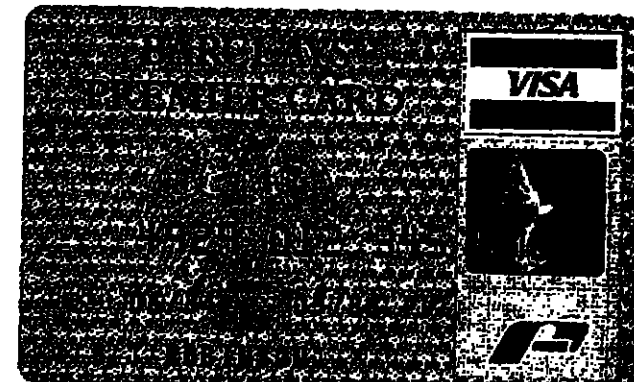
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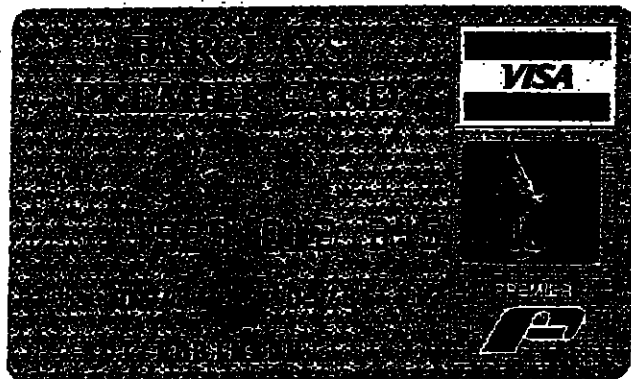
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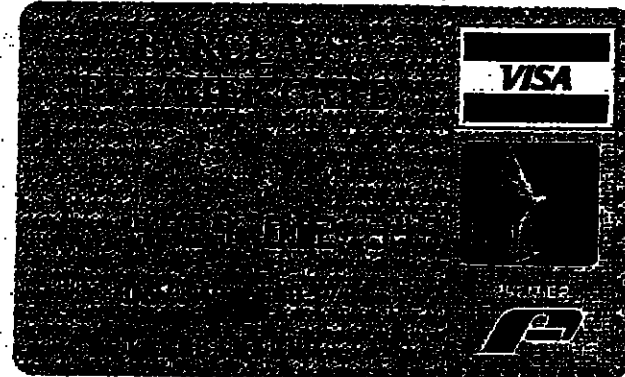
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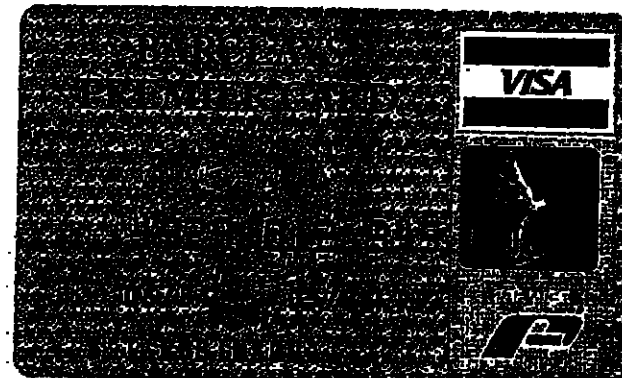
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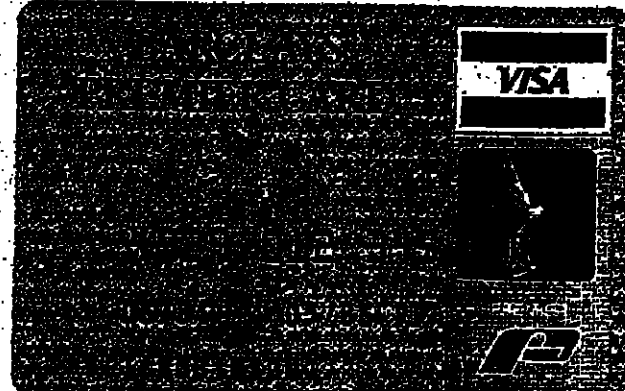
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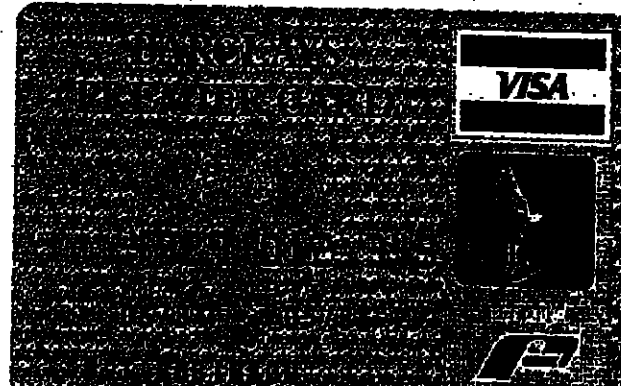
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FT REGIONAL REPORT

MILTON KEYNES

A key factor in achieving balanced growth in the new town has been the development corporation. Its proposed winding down has brought fears that the growth may be weakened

Ordered urban growth

Report by
LORNE BARLING

MILTON KEYNES, one of Britain's most successful new towns generates strong and often opposed feelings. But as the pieces of the giant jigsaw have fallen into place, there is growing agreement that it has become more and more attractive as a place to live.

It is, for example, now taking on many of the better characteristics of American towns, particularly its grid system of roads which provide quick and easy access to most areas.

The vacant spaces, which were a major source of earlier criticism, are now disappearing and the integrity of the design is becoming an important asset. The powers held by the development corporation have led to far more ordered urban growth than could have been achieved in any other way, at the same time providing relatively low-risk opportunities for private sector building.

Designated in 1967, with work starting four years later, Milton Keynes remains only about half way to completion.

The pace of growth has, nevertheless, been startling and the outlook for future development is excellent. However, the strength of Milton Keynes—the sense of direction it gets from the backing of Government funds—are now under threat from the proposed winding down of its development corpor-

ation along with those of Britain's other new towns. With the Government in the shape of Mr Michael Heseltine, then Environment Secretary, announcing in 1981 that the corporation should disappear by the end of the decade, supporters of the Milton Keynes corporation have been lobbying hard to have its life extended until 1995.

The officers of the corporation, as agents of the Department of the Environment, are strong supporters of such an extension arguing that they need time to achieve "substantial completion of the task," a phrase used in the New Towns Act.

Doubts

Overall, the objective of the corporation is to create a "viable city" which will continue to flourish under its own momentum after the corporation is wound up.

Mr Frank Henshaw, general manager of the corporation, is doubtful whether this could be sustained if 1989 is named as the date for the demise of the corporation. This would have a detrimental effect on private sector investment and overall confidence, he argues.

He points out that confidence created by the corporation has been a major factor in the overall development of Milton Keynes—"the private house-builder has always been reassured by the fact that we have been attracting people to buy those houses, and factory owners know that we are creating industrial infrastructure."

Equally, it had been important for the corporation to

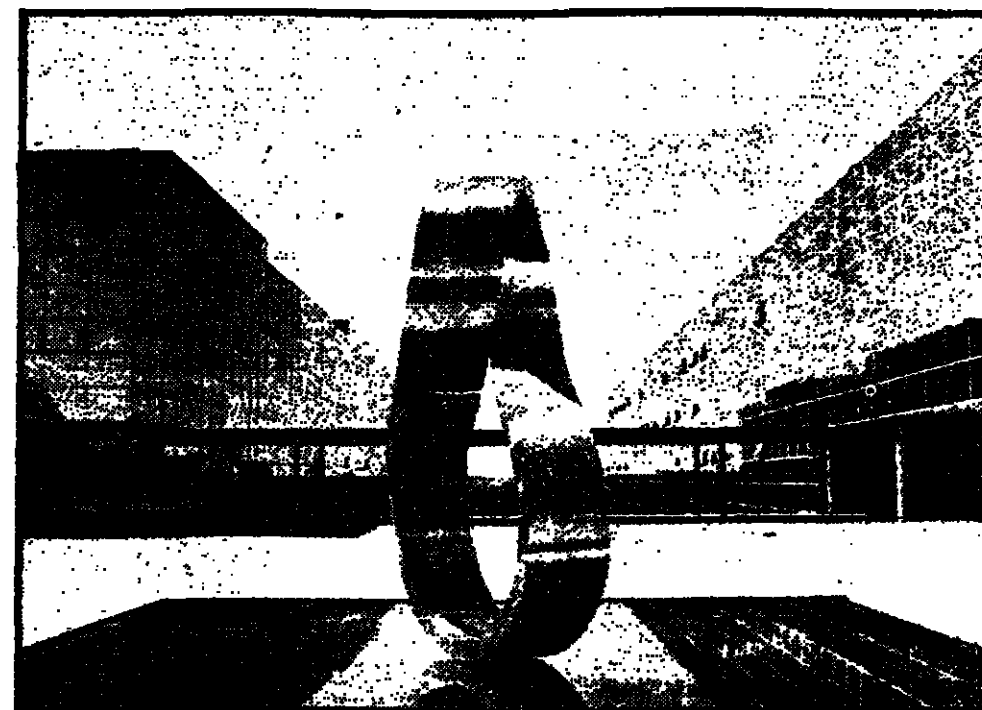
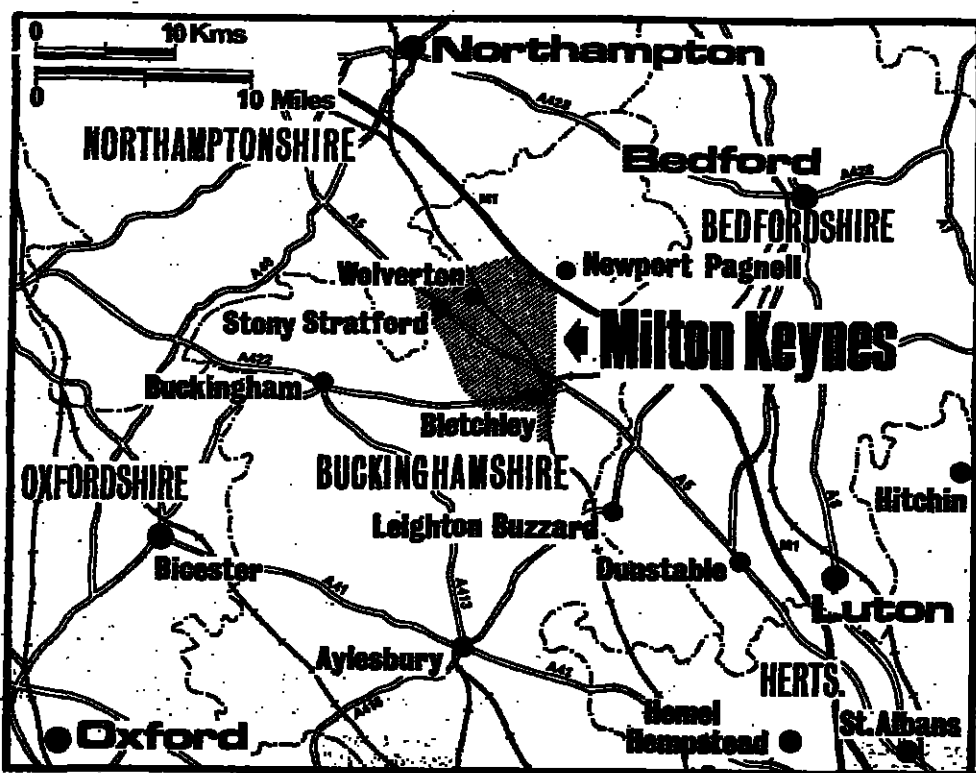
achieve its targets and thereby gain the confidence of the public utility authorities, such as British Telecom, British Rail, the electricity boards and water boards.

These and other organisations had to be persuaded that there was going to be a need, based on population growth and other factors, for them to invest heavily to provide these services. Mr Henshaw believes that the corporation has been successful in achieving this.

To date private sector investment of about £1bn, at today's values, are calculated to have taken place in Milton Keynes, compared with about £500m in public investment, not only from the Treasury, but from local authorities, health and other public funding sources. Mr Henshaw believes that far less public spending over the next 10 years would generate private investment of around £800m, making it a highly worthwhile use of public funds. In

addition, he believes it would avoid the serious threat of the local authority inheriting an incomplete and expensive-to-run city.

It is accepted that the recent New Towns Urban Development Corporations Act was important in creating a new and more liberal financing structure, and even more important in sweeping away the system which imposed high fixed interest rates which reached 17.25 per cent in the 1970s, on



Offices in the centre of Milton Keynes. Left is Ashton House and right, Norfolk House

development corporation borrowing.

While effectively allowing some of this debt to be written off, it imposed a more commercial regime—for example, requiring commercial returns to be achieved on investment in industrial or office property.

The recent ministerial changes, as well as the Government's need to consider its actions in electoral terms, are expected to have a bearing on the wind-up decision.

Third complete

It is estimated that that additional period would take the city forward to the stage of being about 80 per cent complete, and perhaps most important of all the arguments, it would make it a more efficient urban area to run.

This is because almost every aspect of development from the provision of health services, schools, transport and public amenities, has been geared to a target population of around 210,000 and until that figure is achieved, efficient use of resources will not be achieved.

The central or "downtown" area of the city is now only about 30 per cent complete, partly because the provision of office space was not a priority. Now this has changed and although office development is

going ahead fast, not more than 50 per cent of this area is expected to be complete by 1989.

By 1995, however, this figure would have risen to 70 per cent, achieving the kind of employment balance that has been planned all along. One problem, which could never be overcome, was the phasing of development so as to achieve the necessary balance.

For example, until the railway station in the central area was complete, office development was unlikely to be a very attractive proposition, since the need for access to London was important. Equally, the railway station could not be justified until there was sufficient demand from Milton Keynes as a whole.

At this stage in the city's development, it is seen as vitally important to win and maintain the confidence of institutional investors in office property, since they have so much to contribute to the completion of the central areas.

Innovative schemes such as the Central Business Exchange, which has the backing of the Shell Pensions Trust, are regarded as the vanguard of sustained office investment over a considerable period.

As in other new towns, a key factor is achieving rapid and balanced development has been the power wielded by the

development corporation, covering planning, land acquisition and funding. One of the major fears is that a local authority taking over from the corporation, stripped of these powers, would not have the ability to push ahead to complete the task.

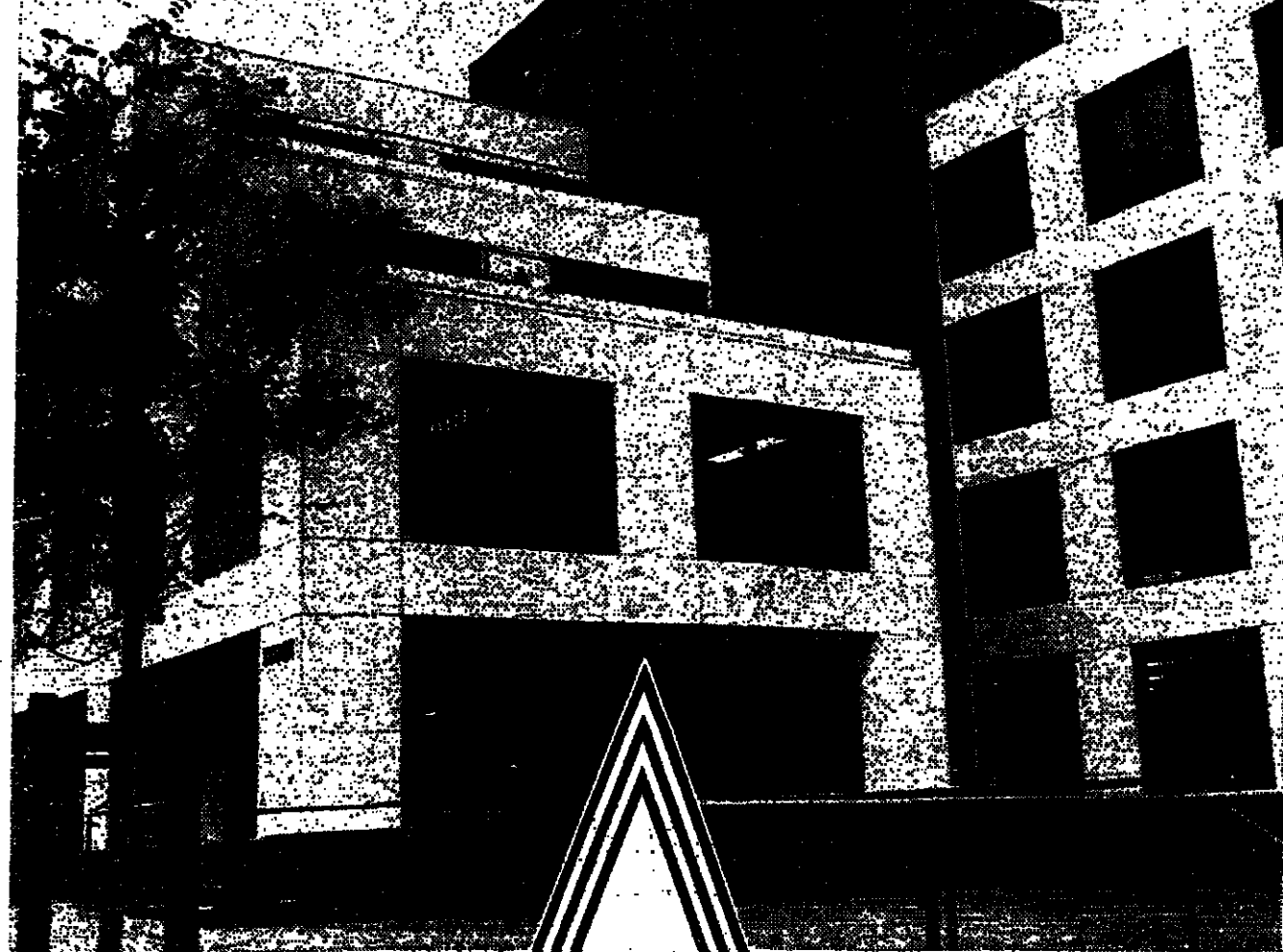
In addition, there are a number of awkward loose ends, such as the considerable amount of land now held by the development corporation. There remains a large question mark over who should take over the ownership and administration of this land.

Overall Milton Keynes' case being granted a further 10 years development corporation status appears strong. Among the many arguments for this, probably the most valid is that for a relatively small additional investment by Government, a large amount of private capital investment will be generated.

Private investment is already flowing into Milton Keynes at a steady pace, however, and it can be argued that further "pump priming" is unnecessary.

Whatever the outcome, it is unlikely that Milton Keynes will be placed in jeopardy in any way, since so much has been invested in its success that it has an international reputation, a solid base of diverse manufacturing and service activities, and a strong growth momentum.

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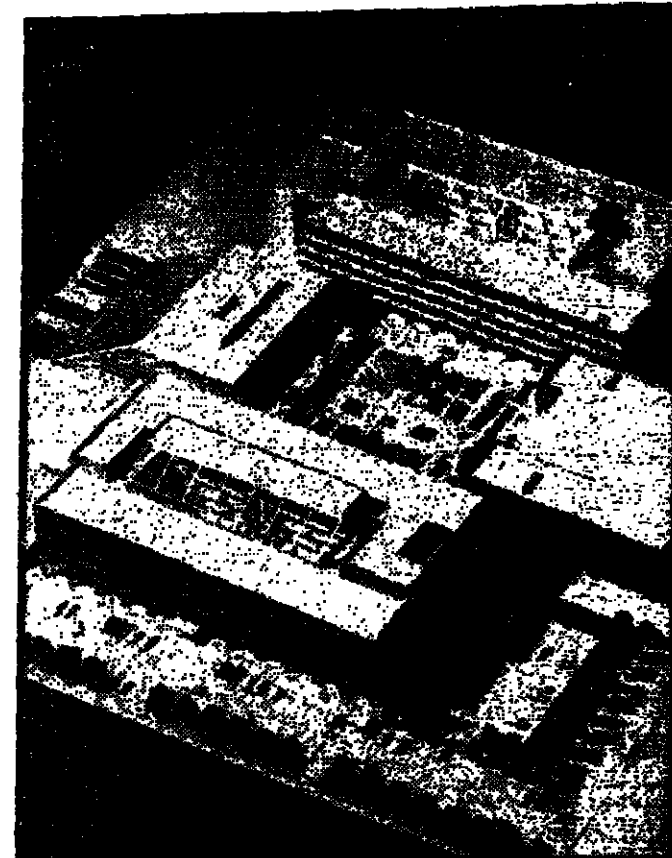
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Above: new homes in the village of Shipton.

Left: a model of "The Point" entertainment centre. Right: a model of the Central Business Exchange (CBX). This £40m project will include four buildings around a central landscaped courtyard, containing offices, a 140-bedroom hotel, retail outlets and a leisure centre.



Successful balancing act between housing, public amenities and new jobs

Hope for new boom in office construction

Development prospects

THE GROWTH record of Milton Keynes since designation in 1967 is an impressive one: nearly 40,000 new jobs, 33,000 new houses built and a population increase of more than 80,000 to over 120,000.

The scale and pace of this development, unprecedented in the United Kingdom, has been based largely on the use of private and public funds, but has involved a vitally important balancing act in bringing forward the availability of housing, public amenities and other services at the same pace as jobs were being created.

Growth in Milton Keynes has traditionally been employment led, with the development corporation playing a key part in providing suitable industrial and commercial premises, while at the same time publicising and promoting itself in the UK and abroad.

Last year, to March 31, was a highly successful one for the city but not untypical. More than 3,900 new jobs were created, about 7,500 people arrived and nearly 3,000 houses

were completed, illustrating that balance is still a priority.

In housing development, completions are now fairly accurately on target, road construction is ahead of schedule, while city centre development is slightly behind though now catching up. In parallel with all this, manufacturing companies, property developers, house-builders, major retailers and service industries have led in private sector development.

However, it now appears that a new stage of development has been reached, with a number of prestige private sector projects being undertaken. The most important of these is probably the Central Business Exchange (CBX), an innovative development which could spark off a boom in office construction.

£40m project

Unique in Britain, CBX is part of an integrated group of buildings offering both business and leisure facilities, situated on A509 Boulevard in central Milton Keynes. The £40m project is now under construction and the first phase will offer 128,500 sq ft of offices and 24,600 sq ft of retail space.

This will be one of four buildings constructed around a central landscaped courtyard. The others will be the Winter Gar-

den, a dramatic building made predominantly of glass with a glazed canopy roof sweeping to the ground.

Inside, terraced landscaped gardens containing exotic plants and trees, with pools and waterfalls, created an unusual background for a wide range of leisure facilities. These include a swimming pool, restaurants, sports facilities and a night club.

The third building will be a high specification, air-conditioned office block: providing 138,000 sq ft of space on six levels, which is to be marketed as a prestige headquarters building for a major British or international company.

The fourth side of the square will be completed by a 140-bedroom, Trusthouse Forte hotel, which the planners believe will help create a highly integrated business centre, with almost every facility which could be required.

Nearby, an architecturally novel entertainment centre, called The Point, which will include the first purpose-built 10-screen cinema complex in the country, is nearing completion. It will be run jointly by Bass Leisure and AMC (American Multi-Cinema) and also contain bars, a restaurant and night club. Plans are now under dis-

cussion for a theatre and cultural centre.

A third but somewhat different aspect of development in Milton Keynes is its commitment to a 200-acre area of the city designated as an energy park. It is the first of its kind in the world, and will include employment areas and housing with strong emphasis on the efficient use of energy.

The area will eventually house 3,100 people and provide employment for about 2,000, while the planning ability of the development corporation has given the opportunity for a unique experiment, with funding largely from private investment.

Curbing energy costs

A major objective is to assist residents and businesses to reduce their energy costs with the support of Government departments, local authorities and energy utilities, many of which are eager to try new schemes in such a controlled environment.

In planning, maximum use will be made of solar energy and landscaping to improve the local microclimate, such as by providing wind shelter for housing areas. All buildings in the park will be required to meet an energy performance standard, based on the anticipated

level of fuel running costs.

The use of efficient heating systems will be encouraged, with mains gas and electricity available to all buildings in the park. New systems for supplying energy to groups of buildings, such as heat pumps and small combined heat and power (CHP) systems will be used where justified.

The £100m energy park was officially opened in February this year by Mr Peter Walker, Secretary of State for Energy and is expected to become an international showpiece for the efficient use of energy. The first 50 low-energy houses for the show village will be open in late summer next year.

These projects are a clear illustration that Milton Keynes is now able to attract investment not only in the standard amenities but in some of the more innovative ideas which are suited to the relatively controlled environment of Milton Keynes.

The energy park has received enthusiastic support from the European Community through its Directorate General for Energy, through which grants for solar energy demonstration systems are being provided for Milton Keynes projects.

Dr Keith Jowels, who works on this solar energy programme, said that the energy park was

important since it required private builders not only to meet energy objectives but to do so on an economic basis.

EEC grants of up to 40 per cent were available for the installation of solar panels and monitoring equipment which could be used for demonstration purposes, he said. Two projects at Milton Keynes were receiving EEC grants, one relating to highly insulated houses, and another on the use of passive solar energy.

Mistakes avoided

Overall, the development of Milton Keynes has so far avoided the mistakes others have made. There are no high-rise buildings, very little "drab concrete" and the large estates have been varied in style and building materials. Landscaping has been of a high standard.

For these reasons, the prospects for future development now seem to be excellent, particularly in areas such as information technology, since it has such a high concentration of high technology companies.

Milton Keynes is one of the first locations to be served by Mercury's new telecommunications services, with a fibre optic trunk network linking it to London, Birmingham and other business centres.

Variety of clean-collar activities points to future trend

Information technology a prime growth area

Service industries

THE GROWING proportion of "service industries" in a modern urban area like Milton Keynes may be an indication of that shape of things to come in Britain, and suggests big changes in our industrial cities.

Office development, largely to accommodate activities such as insurance, accountancy, banking, design and communications activities, is now picking up fast and these operations will

certainly spawn additional service needs. Information technology has been a prime growth area, encouraged by the development corporation, which has seen the considerable advantages in providing companies with the most up to date communications systems.

Milton Keynes will be one of the first urban areas to be served by British Telecom's System X digital telephone exchange system, with its introduction scheduled for late this year and early 1986.

The local cable television system has been expanded by BT, with four new channels now available on subscription. Two extra services are being provided free of charge, one offering local news, information and advertising. Community view-data started in July last year.

Financial advice

As part of the drive for business growth in Milton Keynes, companies in the financial services sector, such as banks and accountants, have had to involve themselves quite closely with a number of local initiatives, such as Business Venture, offering advice and secondment of staff in some cases.

Accountants Peat Matwick opened an office in Milton Keynes late 1980 and in five years this has a staff of four partners and 70 staff, reflecting the growth of financial services in the area.

A spokesman said: "The professional and financial services sector has built up a wide range of services including accountancy, commercial legal services, insurance, pensions planning and chartered surveying."

"Until recently these services were geared only to the consumer, while the corporate market was serviced by firms outside the area. This situation has now changed radically."

Clearing banks have also played an important role in

assisting business development, and Midland Bank is to launch an important experimental scheme in Milton Keynes later this year on behalf of the clearance.

It is part of the scheme to develop a national electronic funds transfer at point-of-sale network, and the Speedline experimental system is now being installed locally. About 80 terminals are being placed at a variety of leading retail shops, and the scheme will run for about two years.

The system allows shoppers to pay for their purchases with a plastic card, which is wiped through a card reader and the customer provides a personal number. The cost of the goods purchased is transferred automatically from the customer's account to the retailer's.

One of the largest employers in Milton Keynes is the Open University, which was established there in 1969 and made a world-wide reputation for itself as a leader in the techniques of "distant learning." It has 120,000 students, making it the largest university in the country, and around 2,000 staff in Milton Keynes, including 450 academics.

In addition to its degree courses, OU is offering an increasing variety of short, non-degree courses, and is also concentrating on business requirements. A number of management courses are offered, as are courses aimed at updating students on technology in business and industry.

Buckingham University, the country's only independent university empowered to grant degrees, is also near Milton Keynes, offering undergraduate and postgraduate courses in several business related disciplines.

One major gap in the services offered in Milton Keynes has been the lack of an international standard hotel, and negotiations have recently been concluded between the development corporation and Trust house Forte for the

construction of a four-star hotel as part of the CBX project, representing an investment of some £8m. Local architects Conran Roche have been selected to carry out the specialist design, and Robert Marriott has been awarded the construction contract.

The five-story building will include a 150-seat conference room, capable of being split into smaller areas, and syndicate rooms for smaller meetings and seminars.

Building design

Professional services related to the construction industry offers naturally grown fast in Milton Keynes, due to the fast pace of building and general development, one of the most notable being Interdec Design Group, which specialises in building design, detailed office space planning, fitting out and furnishing.

Formed in 1972, the company is now publicly quoted and has been closely involved in the relocation of many companies to Milton Keynes. There is little doubt that in terms of cost savings alone, the use of a specialist concern such as this has its advantages.

The group was founded by Mr Simon Miller, who has worked closely with the development corporation on a number of projects, including their own prestige office buildings at Saxon Court. The group has also carried out work for Rothmans (UK), VW Audi, Levi Strauss (UK), Legal and General Assurance and Monsanto.

A number of senior development corporation staff have recently moved to Interdec's Property Design Group, which was founded for companies moving to Milton Keynes, and operates as a consultancy. It offers a full service covering architects, surveyors, space planners, electrical engineers and interior designers, working as a team.

"Office environments are



These high quality flexible-use premises set in low density landscaped environment for companies at the forefront of technology are at Linford Wood.

continually changing to respond and keep pace with advancing information technology. Mr Miller said, adding that there was an increasing need for this kind of work in the city.

The need for business communications has also led to a rapid growth in public relations and advertising agencies, which face the continual battle to persuade companies that they can be as good as London-based competitors, with the advantage that they are on the doorstep.

Epigram Associates, a communications consultancy, has drawn together an experienced

team with wide experience, well-placed to compete on these terms, and has won a number of important local contracts, including that of Interdec.

A service of a quite different kind is being offered through the Douglas Bader foundation, which has chosen Milton Keynes for the development of a firm rehabilitation centre for amputees. An appeal for this purpose has now been launched by the Reading-based foundation. Facilities will include a swimming pool, sports hall, medical centre, golf range and administration building.

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MILTON KEYNES 3

More than 150 foreign companies provide nearly 6,000 jobs

Healthy diversity of products on broad investment base

Industry

THE INDUSTRIAL and commercial base of a city like Milton Keynes has many built-in advantages, and a few slight drawbacks, but on balance it would appear to be an enviable wealth-creating platform.

Without the liability of labour intensive, mature industries which are causing so many redundancies in other parts of the country, Milton Keynes is relatively safe from the kind of disastrous unemployment experienced in nearby Corby.

It also has the advantage of a broad base of investment, since an increasingly high proportion of local companies are foreign owned, and a healthy base of diversity. These factors should ensure that the effects of domestic economic slump, or sectoral downturn, would be minimised.

However, the high technology industries bring some dangers as well as advantages, as has been seen with the recent fall in home computer sales and the general decline in electronics profits. High technology often means rapidly-changing technology, and unexpected cut-backs.

Last year saw a net increase of 4,000 jobs in Milton Keynes, the highest annual growth since designation, and firm commitments made by companies during the year should bring a further 4,000 jobs this year.

There are now more than 60 North American companies, 39 Scandinavian and about 40 Continental European companies in Milton Keynes, and Japan, with more than a dozen local concerns, has recently been recognised as a potentially large investor. The total of more than 150 foreign companies now provides about 10 per cent of the city's 58,000 jobs.

Recent property disposals to companies such as ICI (Electronics Division), Monsanto, Prime Computer and Sperry, are in themselves an important recommendation for Milton Keynes, since many relocation decisions are based partly on what other companies are doing.

Another advantage of the city's concentration of high technology and foreign companies, is that many are likely to expand, and if they do so it will probably be locally. Such expansion has recently been undertaken by Ackermann Electrical Systems, Datoe and Datoe, Isinghausen (GB) and Snuggles, down of Norway, and in the longer term this type of growth is likely to be as important as new arrivals.

New premises

Purpose-built premises on development corporation sites have recently been built by three American companies, Monsanto, WID40 and Microwave Associates, and by three Japanese concerns, Alps Electric, Mori Seiki and Hitachi Power Tools which agreed to develop new premises over a five-year period. Coca-Cola plans to invest a further £8m in its plant at Northfield.

On average, three new companies are established in Milton Keynes every week, according to the corporation, and about 10m sq ft of industrial floor-space have been built since designation.

The level of private investment has grown steadily, according to a background paper on the future role of private investors prepared by the corporation. It points out that more than £125m came from

this source in the past financial year, bringing the cumulative total from the private sector to £1.1bn.

"Against this, the corporation's own investment of public funds has steadily decreased and this year in net terms will be £3m," the paper adds.

"In the early days, most industrial units were built for speculative letting funded by the Treasury. These advance factory units still form an important part of the industrial programme, but increasingly they are funded by private investment," it says.

The marketing of Milton Keynes is still regarded as a vital function, perhaps the most important role of the development corporation, since private funds are essential to complete the development programme by direct investment and the sale of sites to other developers.

Marketing strategy has been developed to "sell" the city as a thriving, modern urban area with the advantages of a rural environment. A city where varied lifestyles can be satisfied. Heavy spending on advertising is justified by the number of jobs it attracts, the corporation believes, and it is particularly necessary in view of the strong competition from other UK business centres.

In the past few years budget cuts have made the corporation more aware of the need to spend effectively in all spheres, and more innovative financial schemes have been brought into use. Fortunately this has come at a time when industry and institutions are becoming more receptive about Milton Keynes.

Emphasis on training

A number of other factors have a bearing on the forefront recently, namely the need to promote the use of high technology, in conjunction with increased emphasis on training, and the need to encourage and support the development of small businesses.

High technology is of course present in most local industries, and its promotion on a broad front is difficult. However, a major benefit in these terms is the present just outside Milton Keynes of the Cranfield Institute of Technology, which is responsible for about 50 per cent of the UK's commercial applied research at universities.

The presence of the country's premier source of new industrial technology should be an attractive proposition, since almost every aspect of business, from management to hardware, is dealt with at Cranfield.

However, it has been necessary to focus more positively on local companies, and the school of management has announced three new programmes for them. These courses have been devised by Mr Peter Saunders, newly appointed to Cranfield's small business team and with special responsibility for developing local business links.

Cranfield School of Management is one of Europe's largest and most innovative university business schools, with 240 part and full-time postgraduate students studying for MBA degrees. Each year some 2,000 managers are sponsored by their companies to attend general management programmes, special short courses and in-company programmes.

The school has just completed recruitment for its English Graduate Enterprise Programme, selecting 40 "student entrepreneurs" from colleges throughout the country. The new courses for local firms are aimed at practical aspects of business, such as company

growth, management development and dealing with redundancies.

The interests of small companies are also promoted by Milton Keynes Business Venture, a joint undertaking between public and private sector, backed by the county council, borough council, the development corporation and 48 private sources, mainly local companies.

In addition to an advisory service, its offers workshop space at favourable rates at its industrial development centre at Kila Farm, where a 20,000 sq ft factory has been converted for the purpose. For example, a special rate for unemployed starters is £175 a sq ft, and central services range from secretarial work to fork lift trucks.

Similarly, a complete office building has been converted for similar purposes, and this is now occupied by about 40 businesses and all rents are below normal commercial rates. About one-third of those helped by the venture are unemployed, and counselling is offered by professionals seconded from local companies.

"We have had a success rate of about 90 per cent in the sense that that proportion of new ventures are still going. One of our main objectives is to train people in management skills and get them through the first 12 months," a spokesman says, adding that 550 new jobs have been created.

Venture also operates a capital fund, lending up to £2,500 at commercial rates but only to applicants who have been refused loans from other sources owing to lack of security but nevertheless have a potentially viable project. A number of small firms have been set up locally to take advantage of this aid.

Growth prospects

Above all, the future success of Milton Keynes appears to rest on the growth prospects of existing companies, among which are some solid household names, and some more exotic sounding high technology concerns.

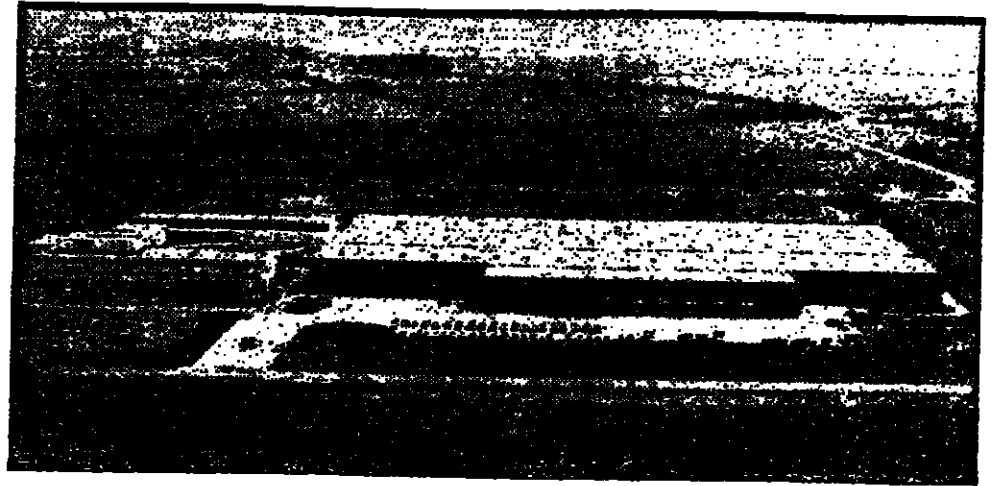
One of the most important local employers is GEC Avionics, GEC division which develops and makes airborne

interception radar systems, one of the most notable being Foxhunter for the new RAF Tornado interceptor. It is the largest company of its type in Europe, employing about 725 people.

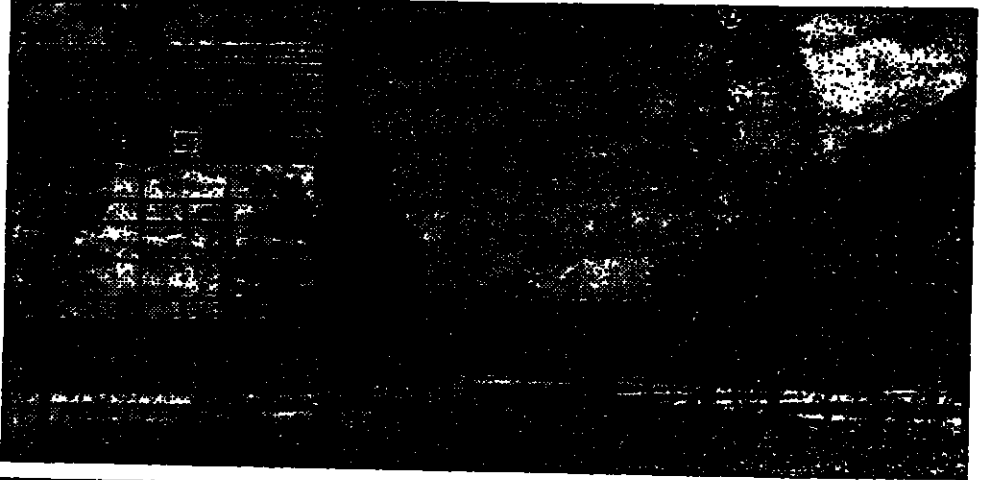
Some of the notable companies present include Coca-Cola, VW Audi, Burroughs Machines, Mercedes Benz, Minolta and Marconi, while the more recent arrivals include the U.S. computer company Compuware Corporation. Prime Computer is building a new R and D headquarters at Willen Lake.

Other important names include Hoechst UK, Aston Martin Lagonda, Ashton-Tate, the successful U.S. software company, and Peridom, the fast-growing visual display unit manufacturer. In the field of robotics, the area is strong, backed by the Cranfield Robotics and Automation Group. It offers a robotics degree course, the first of its kind in Europe.

The robotics and automation companies are Selcom, a BP subsidiary, Asea (Europe's largest manufacturer of industrial robots), Babcock Fata, Reis Robots, VS Remek and Robot City Technology.

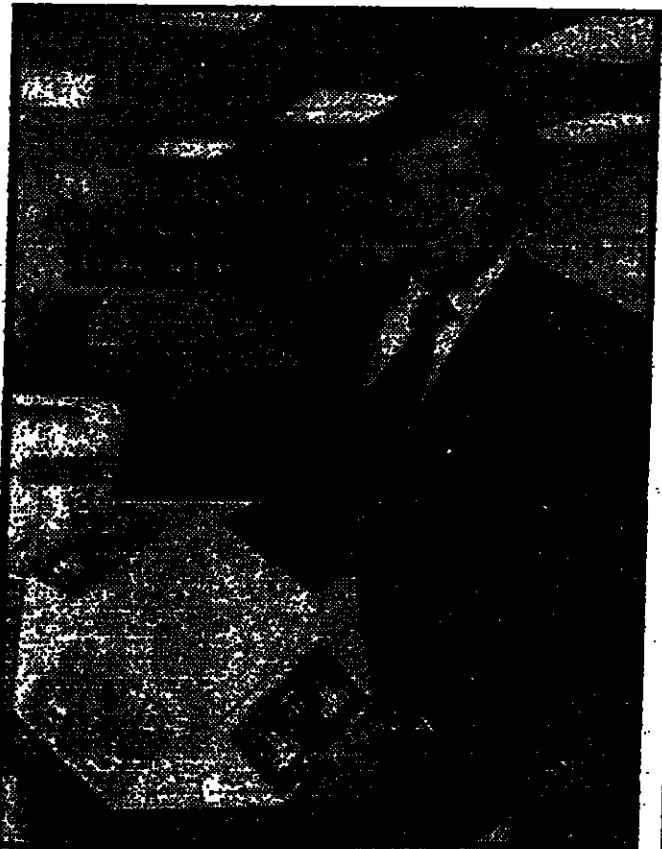


The Volkswagen (GB) plant at Milton Keynes and, below, corner view of Advance Factory Units at Northfield



Milton Keynes added up.

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David Pugh, Ackermann UK managing director from a one-man office in Milton Keynes to a multi-manufacturing plant with wide-ranging UK and export work within five years. He is demonstrating the newly-developed Technology T14, designed for IBM, as a means of interlinking large groups of computer terminals

MILTON KEYNES 4

Construction of the Central Business Exchange (CBX) is key factor Drive for more offices

Property

THE CONSTRUCTION of new office property in Milton Keynes is now regarded as a key factor in the future development of the city, not only in terms of providing additional employment, but in completing the central urban area.

The construction of the CBX complex is a major step in this direction, and architects are now working on the design for the second phase. The development corporation believes that the experience it has gained in the funding of phase one has been invaluable.

Inevitably, funding will become easier as confidence grows and the returns to institutions become more attractive. It is expected that a rental of £10 a sq ft will be obtained at the CBX, setting the pace for future developments.

According to Mr Bob Hill, commercial director of the development corporation, the letting of the 130,000 sq ft Avebury Building within CBX is likely to be crucial. It is of high specification and aimed at a major company as a headquarters, and an early letting would also pave the way for a stronger market.

Overall, the take-up of office property has been fairly brisk in recent months, with Century Insurance of the U.S. taking about 80,000 sq ft. British Telecom nearly 75,000 sq ft. Stone and Webster engineering of the U.S. 153,000 sq ft and Pharmacia of Sweden about 35,000 sq ft.

All of this has been in speculatively built space. About 90,000 sq ft of such space was let in the past financial year in 43 separate transactions to tenants including Rothmans UK, Plessey and Takenaka of Japan.

In the autumn of last year, Sidcon occupied the 83,700 sq ft Wavendon Tower after their purchase of the site from the development corporation, which had itself occupied the 69,300 sq ft Saxon Court as its headquarters in July. Abbey National Building Society occupied its 122,800 sq ft administrative headquarters at Grafton Gate in the centre of the city.

Encouragingly, the development corporation has announced that terms have now been agreed for the disposal of six office sites in the central area for owner-occupied buildings, ranging in size from 6,300 sq ft to 45,000 sq ft. These

will include the British headquarters of the Compuware Corporation of Michigan, and a new Crown building to bring under one roof the government services within the city.

Due to strong demand for small office suites, the development corporation has let 24 of them in sub-divided space in Midsummer House, and to meet additional demand of this kind part of the Station South office building is also being divided into small units.

As this is seen as a growth area, two speculative office schemes are now under construction to cater for the demand for small, self-contained office buildings. Viking Developments is going ahead with a plan for 12 three-storey units set around a landscaped courtyard, to be made available on a leasehold basis. A similar and nearby corporation scheme, will be available on a leasehold basis.

Lettings

Lettings have generally been at rates of between £7.00 and £8.50 a sq ft, this figure being achieved for the BT offices in Central Plaza North, an Abbey Property Fund building. The first floor continues to be used successfully by Silbury Business Centre, where 4,500 sq ft of space is let in small units, fully serviced with secretarial staff and other amenities.

The centre was established in 1982 and has served a number of major companies as well as many small ones as a temporary base which offers maximum convenience. It also caters for non-resident companies, now about 30, which do not need accommodation, but to whom there is real value in a prestige address and communications services.

Prices for 100 sq ft suites begin at £95 a week, £35 a day, rising to £220 a week for the largest accommodation. Meeting rooms cost £40 a day, or £30 for a half day. Display areas can also be rented.

According to local agents, Connells Commercial, the letting of the remaining 40,000 sq ft of Silbury Court to the Dee Corporation was achieved at a letting of £7.35 a sq ft for Sun Alliance Assurance. Connells, acting on behalf of Allied Hambro, has also assigned the lease of 2,232 sq ft of offices at Norfolk House at a substantial premium on the basis of the passing rent of £12,000 a year.

"While development in the central area of the city has been the most spectacular, Bletchley in the southern area has begun

to recover some of the ground it had lost over the past few years," Connells said. Recent lettings have achieved prices of around £4 a sq ft, while an industrial letting of 80,000 sq ft Bletchley achieved £2.75 a sq ft.

Berry Bros reports that rents in modern buildings outside the city centre can be as low as £3.50 a sq ft, but are generally in the range of £6-£8.50 in the more desirable locations such as Newport Pagnell.

The success of the major retailing centre in Milton Keynes has mounted in recent years, with the continuous addition of important new shops, including Benetton, the Italian-owned fashion chain, while British Home Stores has expanded its store to include a food hall.

Earlier arrivals have included Habitat, Dickens and Jones, part of the House of Fraser group, John Lewis, Marks and Spencer. These important names have not only given prestige to the shopping centre, but provided the land of quality goods which the increasingly demanding population requires.

The next phase of retail development will be on the southern side of the central Milton Keynes shopping building, of two food superstores which would complement the range of shops already operat-

ing. This will include several smaller food shops and is expected to start trading in 1987.

The central "corridor" of the city has been pinpointed as the primary location for retail development, and efforts have been made to accommodate "retail warehouse" operations which have become so popular all over the country. At Rookley, a new Texas Homecare store has been opened, and another retail warehouse is being marketed by the development corporation at Winterhill.

Shop units

Premises at Stantonbury, formerly used as a temporary health centre, have now been successfully converted into four shop units, while at Wolverton the Agora development has now been fully let, the corporation said. Four local shopping facilities, regarded as essential local amenities, have been completed at Two Mile Ash, Fuzton, Emerson Valley and Great Holm.

Overall, retail development has needed to be generally encouraged by the development corporation, but as in other areas of activity, it is now expected that the momentum created by the arrival of major multiples will encourage natural investment in retailing.



Malcolm Brighton, managing director of DRS Data and Research Services: people in science-based companies like pleasant surroundings.

PROFILE: DRS

Advantage in living near to hi-tech offices

THE THEORY that high technology companies thrive in rural surroundings has a sound basis behind it, according to Mr Malcolm Brighton, managing director of DRS, a company which moved from London to Milton Keynes in 1975.

He points out that the major resource of science-based companies is people, and that they are the kind of people who like outdoor life, pleasant surroundings and easy access to their place of work.

DRS has two main activities: the provision of data scanning equipment and services; and the manufacture of data logging equipment. Both require highly qualified employees, and Brighton believes that being in Milton Keynes has assisted him in finding the right staff.

While admitting to being on the board of development corporation, he is a total enthusiast about the city, much of which can be seen from the office of his brand new company building.

DRS was formed in 1969, with backing from Kleinwort Benson, when Mr Brighton saw the potential of a scanning system, made in the U.S. by Westinghouse, with help from his company. Essentially, the system reads ticks in boxes at an enormously fast rate, 11 sheets of A4 a second, both sides.

This offered great advantages for the analysis of market research, for the reading of multiple choice answer papers, and other kinds of repetitive checking work.

Despite all this, the company made a slow beginning due to lack of marketing experience and was decided to move out of London where other products could be developed, mainly in the field of new methods of computer data entry.

The company has developed a considerable amount of expertise about mark reading, and also automatic data-logging, such as is required to read water flows, rainfall or other information which needs to be logged over a period of time.

This had traditionally been carried out by mechanical means, with the need to transfer recorded information manually to computers for further analysis. Five years ago DRS came out with its first solid state recorder which has led to considerable success.

This and its successors have been tough, battery-powered machines which are waterproof, secured against vandalism or accidental damage and virtually "powered for life" by special batteries. They have a very high information storage capacity and built-in telemetry systems which enable information to be gathered down a phone line.

The applications of the loggers are numerous, depending only on the kind of answer fitted to them. They have been sold to countries such as the Philippines, China, France, Germany and Switzerland.

The data-logging system was developed largely to diversify the company from its optical mark reading product, but in the meantime this proved to be a success. Initially, DRS was doing reading work on a bureau basis for customers, but later sales started to pick up.

Organisations which handle large quantities of data in this form, such as insurance companies, universities and the market research departments of major companies such as Unilever, are all potential customers. The company also provides consultancy on software, placing a lot of emphasis on after sales service.

120 workers

DRS came to Milton Keynes with 30 employees, and the figure has now risen to 120. Mr Brighton believes the move was the most important business decision he has ever made, for one particular reason.

"In any high technology business you need an adventurous, pioneering atmosphere and Milton Keynes is bristling with it," he says. "We sell intelligent man-hours, and you have to provide an atmosphere where people enjoy working."

He said that many employees lived very close to the office, and when they have a problem to solve will often come in at weekends to get on with it. In London, with the need to commute, this very seldom happened.

Similarly, the company would not have been able to afford to build new premises there, since the cost would have been about four times as high. "About half the staff live within two miles of the building, and that is an enormous advantage," he says.



Major retailers have moved into the central shopping area of Milton Keynes

Mix of developers is successful

Housing

HOUSING DEVELOPMENT in Milton Keynes has been the town's most important long-term undertaking, both in terms of meeting the demands of growth and establishing an architectural style for the emerging city.

More than 30,000 houses have been built in the city since designation in 1967, and by the year 2001 it is expected that a further 33,000 will have been constructed, of which about 90 per cent will be for purchase. Last year 2,952 homes were completed on corporation land, just short of a record number.

The completions were made up of 1,653 by private developers, 801 through shared ownership, 249 housing association and borough council, and 159 for specialist rental. Private sector building has provided the main thrust of housing for many years, and Milton Keynes has proved attractive to developers, since they have been virtually assured of a continuous flow of new buyers.

The development corporation, for its part, has retained tight control of many aspects of housing development. As each site is brought forward for development and infrastructure provided, plans are drawn up for the type of housing required. This covers size of property, style, and type of tenure, such as rental or sale.

Some advice is offered on type of materials to be used, and other guidelines given, before the site is "taken to the marketplace." A variety of

mechanisms are used to choose a successful bidder, such as tender, design tender, negotiation based on tender prices.

The development corporation pointed out that some developers have been working in Milton Keynes for a long time, but at the same time efforts are made to introduce new developers on occasions. Overall, this policy is deemed to have been successful.

In March this year, there were more than 60 private housing schemes under construction, and there were 55 sites where individuals were building on plots of land. The cost of houses for sale ranged between £17,500 and more than £130,000, and earlier this year the 10,000th sale was completed.

Shared ownership housing has proved increasingly popular, and about 2,500 sales have been completed since this form of tenure was introduced. It allows the buyer to purchase a share of the house and rent the rest, increasing the owned share by stages.

This facility is offered both by private developers and the development corporation, and recently the Halifax Building Society made available a substantial sum of money for shared ownership schemes, which will effectively fund the construction of around 700 new homes.

Since the introduction of shared ownership, more than 80 buyers have gone on to achieve full ownership, while a total of 163 private developer homes were sold in the past financial year on shared ownership terms through special funding arrangements. It is expected that demand for shared ownership properties

will exceed supply during the current year.

Demand for rental housing comes largely as a result of new companies coming to the city, or existing ones expanding, and in the past year a total of nearly 6,000 new jobs were created. In this way, the majority having moved with or come to new jobs in Milton Keynes. Earlier this year, there was a waiting list of 600 applicants who have already obtained local jobs.

The corporation said that waiting times for family housing were two to three months for priority categories and up to nine months for non-priority groups. Single people with high priority were now waiting between four and six months, while others had to wait up to two years.

Encouraged

Sales of development corporation houses to sitting tenants have been encouraged, particularly on a shared ownership basis where tenants are unable to afford full purchase, and about 90 sales have been achieved in this way. Overall, a record number of sales to tenants was completed in the past year, raising the total to 1,900. Recent increases in mortgage rates had slowed the rate of sales this year.

A survey has shown that the local population is still much younger than in the country as a whole, despite a significant increase in the number of middle-aged and elderly residents. About 80 per cent of residents were "pleased with life" in Milton Keynes (compared with 70 per cent in 1978) while about 70 per cent of people used the special "redway" outdoor routes for walking, and 23 per cent for cycling.

The location of Milton Keynes remains one of its most important assets, both in business and social terms. From a corporate point of view it has the major advantage of being a few minutes off the M1, it is centrally placed within the UK and, increasingly importantly, relatively near to the booming East Coast ports for trade with continental Europe.

From a social and business point of view, easy access to London is of prime importance. As many as 66 rail connections a day are available to reach London, the fastest being fewer than 40 minutes from Euston station.

Access to London airports is perhaps the only problem, although the completion of the M25 is claimed to bring Heathrow within an hour's drive, Birmingham and Luton airports are of course easily reachable while Cranfield airfield, only 10

minutes outside the city boundary, has facilities for executive and other light aircraft.

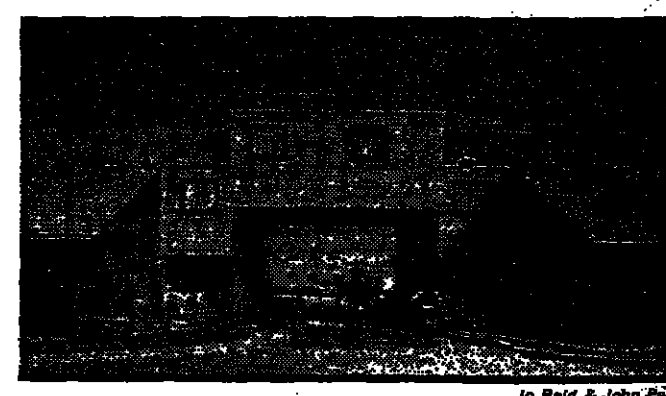
There is little doubt that the quality of life in Milton Keynes has improved greatly in the past few years and the "New Town blues" once a matter of considerable official concern, are no longer such a problem.

Parks and other leisure areas have reached greater maturity, and the city increasingly has a sense of cohesion about it, with fewer unoccupied open spaces, and much more for younger people to do in their leisure time.

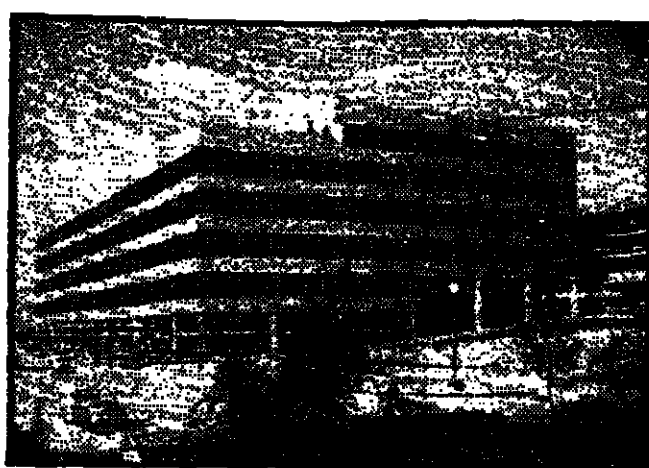
There are two 18-hole public golf courses, and private courses at nearby Aspley Guise, Woburn and Buckingham, an important factor when American and Japanese company executives are choosing a site for relocation.

There are also three leisure centres with facilities for a wide range of indoor sports, each with a theatre and swimming pool. Woburn Abbey and safari park, Towcester race course and Silverstone motor racing circuit are all within a short drive of the city.

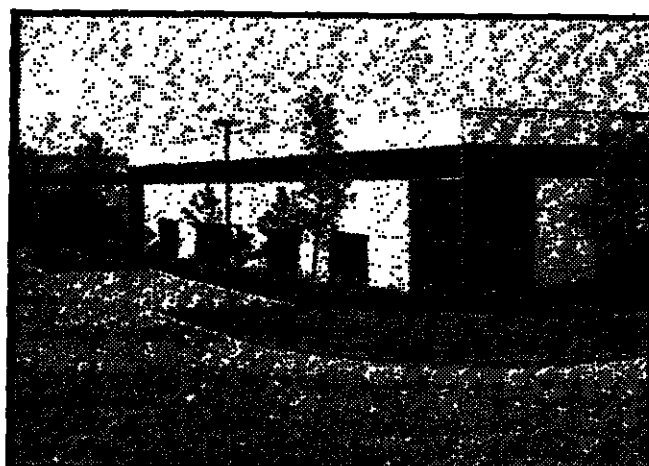
The city has a wealth of parkland within its boundaries with three large man-made lakes providing venues for water sports and the canal and rivers for fishing.



Portico entrance to rear of houses at Stantonbury



The Avebury Building, suitable for office headquarters, is expected to be completed next month. It is part of the Central Business Exchange (CBX) development. Below, typical modern office development in the Linford Wood area



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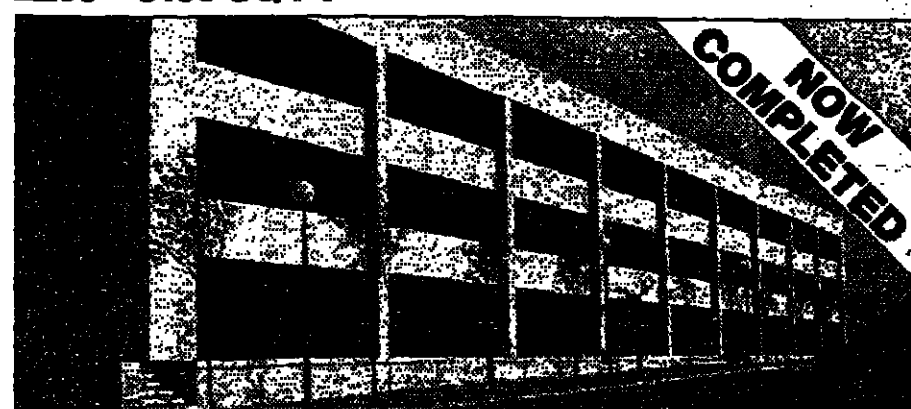
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Monday October 21 1985

Comecon and the EEC

TEN YEARS of sporadic, and thus far fruitless, discussion about establishing relations between the EEC and Comecon, the two economic halves of Europe, have taken a new turn with the latest communication of Comecon's Moscow secretariat to Brussels. The East bloc economic organisation — or the Soviets which dominate it — is now saying that if the EEC agrees to a vague political declaration of mutual recognition, this could open the way for Comecon's 10 member countries to negotiate separate trade agreements with Brussels.

In effect, then, Comecon is at last conceding the long-held EEC contention — that it is not the EEC's equal in trade competence, and that real commercial business can only be done between its individual members and the EEC. For all the ulterior Soviet motives in trying to woo Western Europe away from the U.S., this is an opportunity that EEC foreign ministers should not pass up when they come to consider the Community's reply to Comecon later this month.

The first round of discussions between the EEC and Comecon petered out in 1981 on the latter's unwillingness to recognise the difference between the two organisations. They indeed differ as apples from oranges. Unlike the EEC, Comecon has no common commercial policy and does not negotiate for its members, of which some are GATT and others are outside. It has no common tariffs or quotas, and therefore has little or nothing to bargain with in any bloc-to-bloc negotiations with the EEC.

In these circumstances, the EEC strategy has been to sit back and wait for Comecon members to break ranks and approach Brussels individually for a trade deal. Its assumption has been that, particularly with the enlargement of the EEC, no Comecon country can in the long run afford to ignore Brussels. The strategy has worked, up to a point. Romania, the eastern maverick, negotiated its own trade agreement with the EEC in 1980. But none of its Comecon partners has followed, though Hungary held informal discussions with the EEC. The reason why Hungary, in the end, drew back from formal negotiations is a matter for east European countries have felt inhibited from even start-

Economic size

What, then, are the pitfalls of the common declaration that Comecon is asking the EEC to agree to? The 230-nation declaration is verbiage about promoting "lasting peace" and "social advancement" and references to the Helsinki accords. It has as much to do with business and trade as to quote one recent quip on the Helsinki accords, "the message in the average Christmas card."

The key phrase, however, is that the two organisations establish official relations within their respective fields of competence. The EEC would want to make very sure these relations reflect the narrow range of common areas of competence.

There is, to be sure, a problem posed by the sheer economic size and political weight of the Soviet Union, vis-à-vis its Comecon partners and EEC members, in any joint commissions that might be set up, but the Community could avoid this by making very clear at the outset any real trade for negotiations is a matter for individual Comecon countries.

Labour votes for capitalism

IN HARROGATE last week, Mr Roy Hattersley, Labour's shadow Chancellor, finally scrambled aboard a fast-moving bus, the front seats of which are already occupied by Mrs Margaret Thatcher, the Prime Minister, and Dr David Owen, the Social Democratic leader, wider share ownership.

Mr Hattersley's conversion comes only days after the unveiling of Owners All, a Centre for Policy Studies pamphlet by Lord Vinson, and Mr Chappell of Chappell (of personal pensions fame). This advocates radical reform to encourage personal equity investment. The authors argue that the tax privileges conferred only by big institutions such as pension funds and insurance companies should be extended to individuals — a move towards fiscal neutrality that is explicitly ruled out by Mr Nigel Lawson, the Chancellor, in last year's Budget.

Diverse benefits

The political popularity of wider share ownership is a prime example of the way the Thatcher Government has written the political and economic agenda. Six years ago, the idea was barely discussed in any circles outside the Liberal Party which pressed it in the Lib-Lab pact under Mr Callaghan. Today, employee share ownership, the focus of Mr Hattersley's speech, is very much a commercial reality. One in three companies has either a profit-sharing or a share ownership scheme; half of these extend "right down to the shop floor."

The spread of share ownership and, more generally, access to an income linked to profits or the return on capital, is gaining support because it offers such diverse benefits. There is a strong political rationale for breaking down artificial barriers between "owners" and "workers" — for doing for capital generally what has already been largely achieved in the housing market.

However, there is an equally strong economic rationale for wider share ownership. It is unclear to what extent income from capital can eventually supplement wages for ordinary workers but any trend in this direction needs to be encouraged.

Companies also stand to gain from wider share ownership. If a sizeable fraction of remuneration becomes profit-related, and therefore flexible, companies will be better able to weather economic cycles and to provide secure employment; and, as Mr Hattersley stressed last week, employee share ownership schemes could transform trade union attitudes towards industrial success and profitability.

In the past, these have been equivocal at best because, too often, profits have been regarded, negatively, as something that pays for somebody else's dividend.

Equally important, as Lord Vinson and Mr Chappell stress in their pamphlet, the diffusion of share ownership would break the institutional stranglehold over corporate equities which has grown more intense under six years of Tory rule. By 1983, according to the London Business School, 70 per cent of the personal sector's net financial assets will be held at second remove through institutions. Yet employee share ownership, by large, sufficiently demanding shareholders: too often they have passively accepted poor management instead of pushing for changes at the top.

Voting rights

Wider share ownership is not without pitfalls and should not be seen as a panacea. As Mr Hattersley argues, it is important in employee schemes that benefits are shared equally, rather than skewed towards management, and that members get the full voting rights of ordinary shareholders. More generally, it is necessary to find ways of minimising the transaction costs associated with small-scale equity investment outside the work-place and for limiting the risks faced by unsophisticated, first-time investors.

None the less, the sight of all three main parties gathering behind the banner of wider share ownership indicates the pluses may outweigh the minuses. It is also a sign that the political and economic differences of the parties are perhaps not quite as great as is sometimes pretended. Where Mr Hattersley differs is stressing a parallel requirement for employees to participate in company decision-making.

THE TWO lethal earthquakes which hit Mexico's capital and central Pacific coast last month also struck a seemingly inexhaustible vein of seismicological metaphors among the country's political observers. Fault lines have been copiously charted. The most graphic is the one which, it is felt, separates the government's response to the crisis from the way ordinary Mexicans have reacted. There is also a near consensus that the country's finances, already extremely fragile, have been knocked clean off their foundations by the earthquake and that gaping cracks have appeared in the facade of a regime which only four days before the disaster had celebrated the 75th anniversary of the revolution.

Now the shaken administration of President Miguel de la Madrid must face difficult negotiations with the International Monetary Fund.

The human and material loss inflicted by the quakes of September 19 and 20 — which measured 8.1 and 7.5 on the Richter scale — has been very heavy. At least 20,000 people died.

Around 1,500 buildings were destroyed, or so badly damaged that they will have to be demolished. These include two major state hospitals (one of them the Centro Médico, Latin America's largest public health complex), possibly 50 schools, five ministries and adjuncts of several others, the country's major telecommunications installations, 20 to 30 hotels, and an estimated 50,000 homes.

The country's industrial base, however, was relatively unscathed, with oil installations, mines, vehicle and light assembly plants all intact. The two most significant economic casualties are tourism and textiles. Gross tourism receipts of over \$2bn are expected to plummet in the short term as a result of damage to hotels in the capital and the Pacific Coast twin resort of Ixtapa-Zihuatanejo.

Around 500 of some 1,300 small concerns in Mexico City's nearest equivalent to the New York garment district were also wrecked.

But even before the quakes, the government of President Miguel de la Madrid had been grappling with the worst economic crisis in Mexico for half a century and a slower-moving but arguably equally profound political crisis. There was always serious risk of the two crises becoming compounded — the horrific events of September have increased this risk.

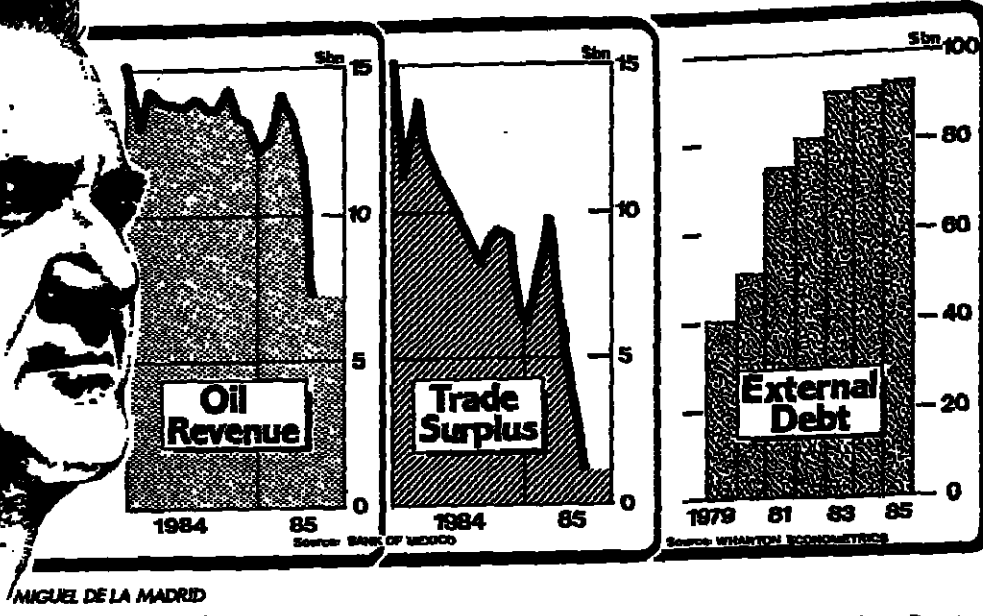
The economic problems followed Mexico's financial collapse in August 1982 and in the main have been tackled with orthodox prescriptions within a three-year programme agreed with the IMF, which was due to end this December.

In its first two years, this programme has halved inflation, cut the public sector deficit and imports by nearly two-thirds, turned Mexico's external finances round to produce bumper trade and current account surpluses in 1983 and 1984 and rebuilt the country's reserves. After two years of restructuring, Mexico also kept up to date with service payments on its \$60bn of foreign debt.

The unparalleled austerity through which this was achieved has been achieved by a third the purchasing power of that half of the 24m-strong workforce with full-time jobs and doubled unemployment to



AFTER THE EARTHQUAKES



The political test as Mexico rebuilds

By David Gardner in Mexico City

outside the bureaucracy. Nonetheless, Sr de la Madrid himself won initial popularity on taking office in December 1982 by promising economic renewal through radical structural reform, and political reform through the hallmark "moral renewal" programme.

The latter pledged to root out corruption and move towards a more open democracy. To date the Government has failed to convince Mexicans it is capable of delivering either. Even faith in the Government's anti-corruption drive — which began with flexible pricing against two exemplars of Sr Lopez Portillo's administration, the former head of Pemex, the state oil monopoly, and the Mexico City police chief, has been weakened by a failure to press hostile political reform has been reduced to a slogan by the Government's resort to wholesale ballot-rigging in the July 7 mid-term Congressional and gubernatorial elections, when Sr de la Madrid's team of politically untried, largely technocratic candidates emerged from a federal bureaucracy, which over the past 20 years has bypassed the Ruling Institution Revolutionary Party (PRI) as the route to power in Mexico.

Political reform has been reduced to a slogan

defined Mexico's central economic problem as "the administration of abundance."

The political bill for this excess has been handed to what many feel is the least politically adept administration Mexico has ever had. President de la Madrid's team of politically untried, largely technocratic candidates emerged from a federal bureaucracy, which over the past 20 years has bypassed the Ruling Institution Revolutionary Party (PRI) as the route to power in Mexico. Neither Sr de la Madrid, nor his two predecessors, had been elected to anything before being selected by the outgoing president and confirmed at the polls by the PRI electoral machine. And few senior officials had had contact with elective politics. All this shows — both in the administration's lack of political touch and in its lack of any firm social base

the cash-devouring public sector was announced in January but by mid-year nothing had been sold. A plan to liberalise imports in order both to make Mexican exports more competitive and reduce inflation was sharply diluted after opposition from industry. The peso has also remained overvalued.

Throughout the first half of the year, the Government stuck to its policy of pre-set crude oil prices aligned to Opec, despite growing evidence that as the oil glut swelled, Mexico's market share could only be preserved by flexible pricing.

By the time a differential price structure was introduced in July, sales had been cut by nearly half and some \$1.5bn lost in revenue.

Average exports in June had fallen to 800,000 barrels a day, against an official 1.5m b/d target. Energy officials claim that sales recovered to 1.3m b/d in July and have been on target thereafter.

Oil not only provides 70 per cent of Mexico's export earnings but 43 per cent of Treasury receipts, and the Government has had to borrow heavily internally to make up for the lost tax revenue, pushing interest rates to record highs, fuelling inflation (now running close to last year's level of 16.7 per cent) and adding substantially to the public sector deficit.

The emergency austerity package announced in late July — including the year's third round of spending cuts, a 16.7 per cent devaluation, and, finally, import liberalisation — was remedial rather than radical and further fostered the image of an indecisive leadership reacting to rather than anticipating events.

This impression was powerfully reinforced by the Government's initial handling of the earthquake disaster. While Mexico City inhabitants of all classes mobilised in their tens of thousands immediately after the first earthquake sliced through the capital, the Government dithered, looked remote and sounded obtuse.

The refusal of foreign aid for 48 vital hours, a well-placed official says, had nothing to do with national pride; the Government simply could not make up its mind. The army was not

allowed to implement its national defence contingency plan for disasters, it now appears clear, because the Government feared giving a traditionally quiescent military a protagonist's role. The army instead became more of an obstacle to rescue work, used for patrolling and to rein in the volunteer brigades, whose vigour and autonomy appeared to alarm the bureaucracy.

Paradoxically, however, the Government's economic hand may have been strengthened by the disaster. It hopes now to present to the IMF new, more flexible targets, which it was heading for even without the earthquake costs, must of which may now be met by new credits from international financial institutions, banks and bilateral funds.

As some officials see it, Mexico's bargaining position with the IMF and its creditors has been reinforced, making it

Little prospect of improvement in the economy

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allowed to implement its national defence contingency plan for disasters, it now appears clear, because the Government feared giving a traditionally quiescent military a protagonist's role. The army instead became more of an obstacle to rescue work, used for patrolling and to rein in the volunteer brigades, whose vigour and autonomy appeared to alarm the bureaucracy.

Paradoxically, however, the Government's economic hand may have been strengthened by the disaster. It hopes now to present to the IMF new, more flexible targets, which it was heading for even without the earthquake costs, must of which may now be met by new credits from international financial institutions, banks and bilateral funds.

As some officials see it, Mexico's bargaining position with the IMF and its creditors has been reinforced, making it

Retreat in the Bahamas

LYFORD Cay, the Bahamas "retreat" to which Commonwealth leaders withdrew for the weekend to try to sort out their differences over South Africa, is not exactly a hideaway for the hard-up.

Built by Toronto brewery magnate and financier, E. P. Taylor, in the late 1950s, it has provided the background for scenes in the James Bond film, *Thunderball*. It was the venue for a meeting in 1982 between the late U.S. President, Jack Kennedy, and then British Prime Minister, Harold Macmillan. The Queen and Prince Philip stayed there in 1986.

Those wishing to buy a plot of land or a "cottage" on this modest estate on a peninsula 17 miles from Nassau, with its championship golf course, marina and \$2m club house, will find the prices fully competitive with those in Mayfair, New York's Fifth Avenue, and the Avenue Foch in Paris.

I have it on good authority that if you cannot afford to buy, you can rent a four-bedroomed cottage, complete with two maids, one chef and three cars, for \$30,000 a week.

One press-man, seeking cheap refuge from a rainstorm while waiting for the heads of government to arrive, bought an umbrella at the golf shop. It cost him a mere \$40, and did not fall apart until at least two hours later.

Lange's view

The Prime Ministers, you might think, would be grateful for the hospitality provided to help them recover from all that fruitless talking since last Wednesday.

Not a bit of it. Though tables had been laid out for them on Saturday in a little colonial-style bungalow next to the main club house, with a view of tropical gardens and a palm-fringed beach beyond, few turned up.

Mrs Thatcher preferred to scrummage around in the fridge

Men and Matters

of her own cottage on the estate — each leader has been provided with a house — while Bob Hawke, the Australian PM, was clearly still recovering from a morning round of golf with President Kenneth Kaunda of Zambia.

Mrs Thatcher was said to be working on her speech for the 40th anniversary of the United Nations, leaving the others to find a compromise which would take account of her firm opposition to economic sanctions against South Africa.

David Lange, of New Zealand, did turn up, however, in a safari shirt hardly large enough to cover his bulging frame. Professing to be totally ignorant of what was happening behind the scenes, he said the atmosphere was "very much like a caucus before a leadership coup."

For once, the outspoken Lange appeared overawed by his surroundings. "I saw a yacht this morning," he confessed. "Where I come from, yachts float, just have sails and are sometimes sunk. But this one looked like the Taj Mahal."

Lange did not really know how the crisis was going to end. "Just watch us," he advised. "If matters come to the point of agreement, we'll be swimming and playing golf. If we don't take to the water, we're still struggling."

It is a hard life in Lyford Cay, I can tell you.

Fall out

Alongside the weighty arguments about "institutional privacy" which are officially said to lie behind last week's collapse of the Italian Government, some point to a much simpler explanation — the intense dislike that Giovanni Spadolini, the Defence Minister, and Bettino Craxi, the Prime

Minister, have for each other. It will be recalled that it was Spadolini's disapproval of Craxi's handling of the Achille Lauro affair that led to the withdrawal of his minority Republican Party from the Government.

In theory, the two men ought to have much in common. They both lead parties in the centre-left of Italian politics, sandwiched between the Christian Democrat and Communist machines.

Craxi's larger Socialist Party usually needs Republican support. But it was Spadolini who, between 1981 and 1982, was both brought down by Craxi, who was determined to let nothing stand between him and the Prime Minister's office. Spadolini has never forgiven him.

Nor can Spadolini have much liked Craxi's success in staying in power for an unbroken period of more than two years — just 29 days short of post-war Italy's record for governmental longevity.

The two men are quite different in temperament. Spadolini is friendly and loquacious, a born conciliator; Craxi is prickly and, on occasion, ruthless.

Now that the U.S. has patched up its quarrel with Italy, there are signs that Craxi could soon return to power. If so, he would have outmanoeuvred Spadolini again. At least until the next episode in their quarrel.

Word perfect

Japan is, as the world knows, embarked on a process of internationalisation. This does

not mean merely selling things, but becoming, in less easily definable ways, more attuned to foreign habits.

One by-product of this is a remarkable competition between senior politicians to display their prowess in the English language.

Yasuhiko Nakasone, the Prime Minister, last week gave a speech in English to the Foreign Correspondents' Club in Tokyo — a task he has tackled only once before as PM, at the International Institute of Strategic Studies in London last year.

In casual conversation, moreover, Nakasone demonstrated a reasonable competence in unheeded English, though scarcely Japanese message. He has taken singular delight in pointing out such infelicities as he did commit publicly.

It was surely no coincidence that Nakasone's speech came a few days after Foreign Minister, Shintaro Abe — who has his eyes on Nakasone's job — made a maiden speech in English in San Francisco. This amazed even Abe's admirers for he had not previously shown any knowledge of the language.

Other would-be Prime Ministers are also dusting off their linguistic abilities. Susuma Nakasone — in his late 70s and an admitted longshot for the post — has been touring the U.S. trying to persuade American politicians, Japanese message. If colloquial English, that Japan is not about to undo the U.S. economically.

Another candidate, Kiichi Miyazawa, is an accomplished linguist from way back.

All of which has left the other leading contender, Noboru Takeshita, the Finance Minister, in a dilemma. Before he entered politics, he taught English. But he has taken to giving little speeches of late, conceding that indeed he was an English teacher, but then adding artfully and accurately, that like most Japanese English instructors, he cannot speak the language at all.

Observer

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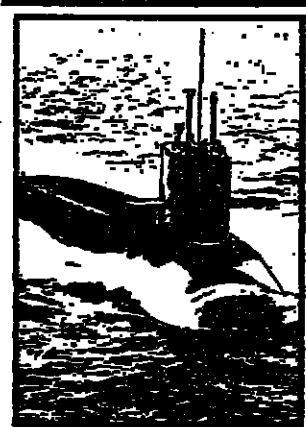
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FOREIGN AFFAIRS: NEXT MONTH'S SUMMIT

Gorbachev puts some cards on the Americans' table

By Ian Davidson



STRATEGIC WEAPON TOTALS

	U.S.	Soviet
ICBM missiles	1,030	1,398
ICBM warheads	2,130	6,400
Missile submarines	37	62
Submarine missiles	600	954
Submarine missile warheads	5,370	2,500
Missiles Total	1,630	2,352
Missile Warheads Total	7,500	8,900
Bombers	263	480

Source: USIS



THINGS ARE moving along quite nicely towards the Reagan-Gorbachev summit in Geneva next month—at least from the Soviet point of view. Moscow has made a radical proposal for deep cuts in nuclear weapons. The Americans have been urged by their European allies to respond with a counter-offer of their own and that recommendation will be pressed home by Mrs Thatcher at this week's western summit in New York. Finally, the Americans have backed away from a legalistic interpretation of the 1972 Anti-Ballistic Missile Treaty that could have allowed them a totally free hand to develop and test a Star Wars anti-missile defence system. In other words, Mr Mikhail Gorbachev still seems to be holding the propaganda high ground.

Yet it remains hard to discern Soviet strategy in the run-up to the summit, and even harder to make out whether in the next few weeks, the U.S. Administration has or can devise a coherent strategy of its own. The Soviet position, as formulated by Mr Gorbachev in Paris and as embodied in the formal proposals in Geneva, contains glaring inconsistencies. In Washington there is a continuing bureaucratic struggle between those who favour and those who oppose arms control in principle; and for all we know, the contradiction in the Soviet proposal is a deliberate ploy to make the Americans think that the Soviet position is one-sided, unfair, and self-serving—and they go on to give facts and figures which they think it is one-sided, unfair, etc.

The Americans have been careful to emphasise, time and again, that they welcome the Soviet proposal for deep cuts, as a first step which could allow the negotiations to get moving. Just as regularly, they then complain that it is one-sided, unfair, unbalanced and self-serving—and they go on to give facts and figures which they think it is one-sided, unfair, etc.

Some details of the Soviet plan have been given to the Washington Post by a senior Administration official, who may be none other than Mr Robert McFarlane, President Reagan's National Security Adviser. The full text of his briefing has been disseminated world-wide by the U.S. Information Service; but if this is background, it is hard to imagine what is left for the negotiators to do. It is also hard to see how far one can rely on an American gloss of the Russian proposals. Still, here goes.

The gist of the Russian plan is that there should be a 50 per cent cut in strategic missiles and bombers on both sides, with a ceiling of 6,000 warheads.

This is not a world away, in crude terms, from the long-standing U.S. offer to cut strategic missiles to 850 on each side (which would be a 50 per cent cut for the U.S., and a bigger cut for the Russians); with a ceiling of 5,000 missile warheads on each side (which would be a one-third cut for the U.S. and a bigger cut for the Russians).

The central trouble with the Russian offer lies in their definition of "strategic." In the Strategic Arms Limitation Treaty of the 1970s, strategic weapons were defined as those having a range of 5,000 km or more. That is, those capable of reaching the Soviet Union from the U.S. and vice versa. Now the Russians are going back to their old game of trying to define "strategic" by the target territory. In this sense, any U.S. weapon is strategic, whatever its launching point, if it can reach the Soviet Union.

The Americans object strenuously to this rewriting of the negotiating conventions, for obvious reasons. It would mean that the U.S. total under the chopper would be bumped up by all their nuclear weapons in Europe—Pershing II and cruise missiles, land-based and carrier-based aircraft—so that a 50 per cent cut would bite much deeper into the U.S. arsenal of the U.S., especially with an absolute warhead ceiling of 6,000.

Now it is easy to see why

the Russians should be trying to start out by asking for a good deal more than they expected to end up with: negotiation would whittle away the worst extravagances. But this opening position is so far from any imaginable centre-point that the whittling process will take months, if not years.

Whittling away the worst extravagances will take months, if not years

deal after the 1962 Cuba crisis, when Moscow drew back from deploying missiles in Cuba, and Washington then withdrew missiles from Turkey.

But it is less easy to see why the Russians should imagine that they could swing a deal which is manifestly inequitable and non-negotiable; why they should be asking for the sun and the moon with only a month to go before the summit; or even—this is the puzzling part—what is their real position on nuclear weapons in Europe.

Mr Gorbachev has said that he wants the summit to conduct real business, by inference real arms control business. The

Russians could be counted on to start out by asking for a good deal more than they expected to end up with: negotiation would whittle away the worst extravagances. But this opening position is so far from any imaginable centre-point that the whittling process will take months, if not years.

It is conceivable, however, that we are seeing evidence of bureaucratic disagreements in Moscow. There are certainly contradictions and inconsistencies within their Geneva texts, according to the Americans. Could the Geneva proposals represent the maximalist demands of the Soviet military, who would have to be persuaded of the case for a 50 per cent cut; while the Gorbachev speech conveys a hint of a more accommodating position?

The Americans have quite a litany of other complaints: for example, the Russian proposals would ban all new U.S. weapons—the Trident submarine missile, the Midgetman land-based missile, and the so-called stealth bomber—but not the two new Soviet land-based missiles. But despite the complaints, the U.S. Administration has given one very clear indication that it does not consider the position hopelessly non-negotiable: for the first time, Mr George Shultz, the Secretary of State, has started talking of the contribution that Britain and France might have to make to the arms reduction process.

In a speech in San Francisco last week, he said: "If we are able to get radical reductions, so we are really moving toward what the President has set out as our goal, namely the complete elimination of nuclear weapons, that when you get down to a point below, considerably below, where we are, then it can no longer be argued that the British and the French systems are an inconsequential number in comparison to the total. I might say, the Chinese need to be included in this equation as well."

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In other words, if Mrs Thatcher feels entitled to urge the Americans to improve their offer in Geneva, the Americans may feel entitled to return the compliment, at least hypothetically.

In one sense the Americans have already improved their posture, at least in the eyes of the Europeans, on the question of Star Wars testing. A few days ago Mr McFarlane declared that Administration lawyers had re-examined the 1972 ABM Treaty, and had given the green light to all kinds of testing of exotic new anti-missile defence technologies. Outside experts contest that this is an inadmissible reading of the text. But whatever the legal rights and wrongs, Mr McFarlane's statement provoked uproar and President Reagan felt obliged to decide, and Mr Schultz to reassure the NATO allies, that the Administration would interpret the treaty in the strictest terms.

This is reassuring for the Europeans; but what does it do to Mr Reagan's bargaining leverage vis-à-vis Mr Gorbachev? It may fairly be deduced that it was Star Wars and the fear of its momentum which brought the Russians back to the bargaining table in the first place, and which induced them to offer radical cuts in offensive weapons as *quid pro quo* for a ban (or eventually curbs) on Star Wars. A speech by Mr Shultz is not the same as an international treaty, and he has yet to spell out in any detail what a "strict" interpretation of the ABM Treaty would mean in operational terms. Nevertheless, it is possible that the Russians may now feel less incentive to compromise on offensive weapons cuts.

So the question now is whether the American Administration is able and willing to regain the initiative, in negotiating as well as in propaganda terms, by making an improvement in its offer in Geneva, which presumably means offering higher (or bigger-sounding) reductions. Its greatest fear must be that Mr Gorbachev will retain the high ground and be in a position, if no progress is made at or before the summit, to lay the blame squarely on President Reagan. Nancy would not like that.

Lombard

Services have become visible

By Christian Tyler

BANK TELLERS are replaced by cash dispensers, petrol station attendants by automatic pumps and cinemas by videotape players. One day, perhaps, barbers will be made redundant by haircutting machines. In each case, a domestic service is giving way to a piece of internationally-traded equipment.

We are failing to see what is really going on in the world, according to Dr Juan Rada, the newly-appointed director of the International Management Institute in Geneva. An expert on the industrial impact of technology, Dr Rada believes the material component of "invisibles" is increasing, and so is the invisible component of goods.

For instance, the computer chips with the biggest "invisible" element in them, the sort tailor-made for industrial customers, are expected to account for about 40 per cent of world demand for chips in the next decade.

If Dr Rada is right, then most of the clever-looking distinctions drawn between goods and services are artificial, or at least useless. By the same token, politicians who believe—as many apparently do in Britain and the U.S.—that "services" will fill the hole left by a declining manufacturing industry, are being led up the garden path. The point is important, because much of the increase in employment in services (outside government bureaucracies) is coming from the so-called producer services.

To show we understand what is going on, we could start by abolishing the distinction (statistical as well as conceptual) between the primary, secondary and tertiary sectors of our economies. Dr Rada says the primary sector—agriculture and mining—is already industrialised; and now manufacturing, the secondary sector, is being reindustrialised by the service, or tertiary, sector.

The point has already been recognised by some of the developing countries like India and Brazil. They are very reluctant to let the General Agreement on Tariffs and Trade start negotiating free-trade rules for services. They are afraid that penetration of their markets by the big Western

"service" companies would spell the end of their infant industries.

Implicit in their argument that Gatt should reinforce the rules on trade in goods, but is not competent to frame rules for services is the suspicion that the old theory of comparative advantage no longer holds water. By sufficient investment in high technology, countries can create a comparative advantage for themselves. A development country's cheap labour is no longer a comparative advantage in a capital-intensive world. The U.S. recognises the point, too, but also implicitly. Why else should its negotiators in Gatt focus so hard on trade in "services," and in high-technology goods? Why else raise the issues of foreign investment, industrial subsidies, intellectual property rights and counterfeiting?

By presenting the services question as a trade issue, the U.S. has succeeded in getting it at least into the margins of the Gatt debate, even if the subject itself is looking pretty unresolvable in the proposed new round. If it had been presented in its true light—that is, says Dr Rada, as a foreign investment issue—there would have been no hope at all.

The same confusion surrounds subsidies. There is a world of difference between spending money to sell surplus abroad, as the EEC does with agricultural commodities, and the way that Japanese companies are able to concentrate their resources to make their products unbeatable in their chosen fields.

How, for example, should we regard high-tech initiatives like President Reagan's Star Wars, a research programme that could capture and exploit commercially the high peaks of technological advance regardless of its strategic success?

The uncomfortable conclusion is that if the goods/services distinction is shallow and unreal, then the trade issues of tomorrow are far too complicated, elusive and political for the old tariff-cutting mechanism of Gatt to handle. Merely by trying to update the old rules, trade negotiators may get no further than to discover how much the nature of international business has really changed.

Coronets and begging bowls

From Lord Selkirk

Sir,—Samuel Brittan's enjoyable article (October 17) on the report of the Lords Select Committee on Overseas Trade leads me to wonder whether on matters relating to trade, politics and finance I have been cunningly duped by misguided baked-bean-eating geriatrics.

Our report may provide a temporary battleground for the "wets and dries." Its principal purpose is to open up the debate on the future of British trade in manufacturing. Inevitably it raises the issue of the erosion of our manufacturing capacity at home, our lack of competitiveness and the reliance of our economy upon the oil and service sectors.

Many of us would like to be convinced that, when the benefits of North Sea oil are no longer with us, we could survive and prosper without a strong and profitable manufacturing base.

The winning of export orders for goods and equipment supplied from north of the succulent service sector of the south-east is essential for both employment and economic growth. International competition is intense, and regrettably government intervention, government aid and government-backed credits have become an essential ingredient in the competitive whirlpool.

To pretend that government has no role to play would be folly.

I personally, however, take great comfort from the statement of Mr Norman Tebbit, the then Secretary of State for Trade and Industry, in his evidence to our committee on June 19: "I think it is a matter for concern that our manufacturing base should not be eroded to the extent where we can no longer offer jobs to our people and sustain the service industries which are in many cases dependent to a considerable extent upon it."

Selkirk, House of Lords, SW1.

Export credit insurance

From Mr J. Friend

Sir,—If the mark of a good public relations exercise is to make totally unpalatable news completely acceptable then Sports Credits Guarantee Department can fairly claim to have scored a number of points in the article "ECGD's rates exports to South Africa" (October 4).

Unfortunately in making its repeated claim that the rate sector cannot match it in terms of coverage and premium it is very wide of the mark.

Letters to the Editor

Export credit insurance from the private sector, especially for developed countries such as South Africa, is very often much better than that available from ECGD. Certainly if 1 per cent is now the going rate for South Africa as far as ECGD is concerned then some companies offer very much more attractive rates. As for the question of cover there are many private sector companies who are able to offer export credit insurance on very much more attractive terms all round than ECGD.

The view that ECGD still has an advantage over the private insurance sector may have been true 10 or 20 years ago but is certainly no longer the case now.

J. C. W. Friend (Manager, Export Department), 12-34, Great Eastern Street EC2.

Auditors' duties

From Mr J. Smith

Sir,—In his letter on "Auditors' duties," (October 4), Mr J. C. E. Dow refers to the function of auditors as "certifying to shareholders that a bank's accounts present a true picture of its position." There would probably be less confusion in any discussion on this subject if those involved remembered that the auditor's main duty in relation to annual accounts is to report on them.

In reporting whether, in his opinion, the accounts give a true and fair view, the auditor does not certify them.

J. E. Smith, c/o Postbox 373, NLE280AJ Ryssyk, Netherlands.

Commercial radio

From Mr B. Waters

Sir,—Anthony Thorncroft's survey of radio advertising (October 16) is extraordinary for its omissions. True, he plots the recent decline in Independent Broadcasting Authority commercial radio advertising; he refers to some of the reasons for the decline in audience and to the inflexibility of the governing regulations.

But somehow he manages to avoid reference to the two most popular commercial stations broadcasting to Britain—Caroline and Laser. True, their

advertising revenues may not be published, but it is the governing regulations of the IBA which make the offshore stations more consistent, professional and popular.

Is it not ironic then that it is only legal for non-British advertisers to take advantage of them (on Caroline, Nikon, Newsweek, Hawaiian Tropic, for example)? Caroline has been broadcasting for over 21 years from a ship. Is it not time for it and other national stations like it to be allowed to give British audiences the standard of choice in radio long enjoyed in North America, and give radio advertising a real opportunity to make that element of the licence fee redundant?

Brian Waters, Boicot Waters Cohen Partnership, 64 Wilton Road SW1.

UK defence procurement

From the Defence Correspondent, Union of Independent Companies

Sir,—There is no question that Mr Peter Levene's work in defence procurement (October 9) is of considerable importance both to the pursuit of "value for money" and to the future development of the economy of a whole. Recent research in the UK and the U.S. has demonstrated the link between defence spending and the development of job-generating small high technology firms central to the economic recovery of the UK.

The move towards "fair" competition at systems and sub-contract level is to be welcomed. Mr Levene's conviction that the largest falling in MoD's pursuit of "value for money" has been in the extensive use of cost-plus contracts is correct. In practice these represent a direct subsidy from the tax payer and encourage inflated pay settlements.

Effective competition, however, only exists where the firms best able to supply are given access to the market. A number of factors conspire against that—not least the unrestrained transfer of economic power to the primes which is often described as "inviting the wolf to the baby's cot." The new contract terms proposed by Mr Levene will help if they are monitored and enforced.

The lack of an effective mechanism for the distribution of market information means

that the system effectively selects its suppliers on the basis of commercial ability. Research has demonstrated that simple measures to increase the transparency of defence markets would double the number of firms willing to compete and encourage selection on the basis of manufacturing ability.

The time is passing when we can view UK markets in isolation. There is a new emphasis on collaboration and the development of a European defence market.

J. Forrester, Mire House, 44-46 Fleet Street, EC4.

Sugar and the EEC

From Mr G. Taylor

Sir,—I note (October 16) that Tate & Lyle's recent withdrawal will be from Belize. As one of 2,500 former cane sugar refinery workers in Liverpool I have some sympathy for the cane farmers' desperate plea. I have never understood why the EEC prefers beet sugar. Relative to cane it is difficult to grow, low yielding and tricky to refine. Sugar is one of the few basic raw materials in which developed and third world countries compete as producers.

So what do we do? Selfishly insist on our inferior beet. Moreover, our farmers surely have many alternatives to beet, which are more successful: whereas the growers of Belize doubtless have few alternatives as satisfactory as sugar cane. To my list of strange things south of Walford Gap, I add Brussels.

G. S. Taylor, 41 Argus Road, Formby, Liverpool.

Losing the game

From Dr A. Romeo

Sir,—I am writing in reference to the article (October 10) on "How the Japanese write their own rules of the game."

Although I found the article of considerable interest, I was somewhat dismayed by the "baseball metaphor" in paragraphs one and two. The terms "end-runs" and "quarterback sneak" are not from baseball but rather from American football. Also, the phrase "winning many more runs" is inappropriate. In baseball, teams "score" runs; they don't "win" them. They win (or lose) games. As an expatriate American struggling to understand games like cricket, I can sympathise with the less than full understanding of the terminology of baseball. When in a position of limited knowledge, however, one is perhaps best advised to avoid such metaphors. Their use just doesn't seem "cricket." Dr A. Romeo, Unilever UK Central Resources, P.O. Box 68, Unilever House, Blackfriars, EC4.



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FINANCIAL TIMES SURVEY

Computers in Banking and Finance

Banking is moving beyond back-office electronics and automatic tellers into the critical area of machines allowing customers direct access to accounts

Swimming with the electric tide

By Alan Cane

THE electronic earthquake has passed, leaving the foundations of the banking world shaken but intact. The tidal wave of new service opportunities which followed is still roaring across the financial countryside.

Bankers and their contemporaries in other financial institutions have by now got more than their feet wet. They are in over their heads and swimming with the tide—some more strongly than others.

Among the old guard there is still unhappiness and uncertainty. A study by the management consulting arm of accountants Touche Ross International, which earlier this year examined banking technology in 28 countries, revealed that senior bankers are disappointed with the impact of new technology on the banking industry in spite of the massive sums invested.

They were depressed that they were unable to use technology to achieve a lasting competitive advantage over their principal competitors and they found they had failed to achieve the expected economic returns through reduced operating costs or through fees for new services.

Significantly, however, the bankers who expressed most disappointment with technology were those who had spent their money on yesterday's solutions

—who had let the technology lead them rather than vice versa.

Winners in the banking technology stakes were those who had exploited the technology to meet market needs. Touche Ross notes: "The more successful banks have taken a market-driven approach to organising their people and technological resources. Market-based organisations have been established and give direction to or have actual control over technological resources."

"This approach improves the alignment of costs and revenues with markets and establishes direct responsibility for results."

To a large extent it is falling to the younger managers, more aware of what the technology has to offer and more flexible in their approach to the market who are beginning to show the way.

The evidence supporting this conclusion includes the appointment last year of Mr John Reed as chairman and chief executive of Citibank in succession to Mr Walter Wriston. Citibank is one of the most innovative of the big banks technologically and Mr Reed's name is inextricably linked with its aggressive approach to consumer banking using all the technology at its disposal.

The scale and diversity of what is happening as the world's financial institutions take automation on board is making a confusing, if exciting, picture.

The state of play is roughly



Batteries of computer-aided equipment dominate the modern office, like the international dealing room of Hoare Govett, in London (above) showing gold and mining shares manager Richard Robinson in full flow

as follows:

All the major banks and financial institutions have efficient and competent "back office" automation.

That means they have computerised most if not all of their accounting and transaction processing functions, shedding labour in the process. This has been developing steadily since the banks first started to instal computers in the 1950s and 1960s.

For all their staid ways, banks world-wide are usually the bell-wethers of commercial data processing. They have the money to buy and experiment with new equipment and they understand the economics of automation. A report from the consultancy Pactal indicated

that UK bankers are among the most advanced groups in the use of expert systems—ways of using artificial intelligence to provide an automated "advice service."

Belgian banks which are among the most advanced in electronic banking, are collaborating with software houses to develop and sell expert systems.

Back-office automation left the banks with a massive information processing capability, but of a peculiarly inflexible kind. Most of the big banks have installed IBM mainframes, best suited to processing large batches of data at high speed. From 1970 onwards, however, with the development of micro-electronics and cheap computing

power, the environment

changed sharply.

It became possible to provide automated machinery at a reasonable cost for staff in the branches and even for the customers to operate themselves. This kind of development has massive implications for the fabric of the financial world.

The need for a physical presence, for a High Street site, is removed at a stroke. A bank or building society can be anywhere there is room to instal a computer terminal.

There is no need, perhaps, even to instal a terminal. This year Citicorp, parent of Citibank, said it was testing a palm-sized personal computer ter-

minal that would allow its customers in the U.S. to do business with it without entering a bank.

The terminal can be plugged into a telephone to allow the customer to check a bank balance, transfer money between accounts, look up recently written cheques and pay bills.

The "bank-in-your-pocket" is, for most people, something for the future. But the new economies of scale in computing power did make possible the development of extensive networks of automatic teller machines ("banks-in-the-wall"), high-speed cash dispensers, and counter terminals to help the cashier and branch processing systems to provide customer

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information swiftly for managers.

On the wholesale side, it made possible aids for the banks' foreign exchange and money markets dealers, electronic cash management systems and inter-bank messaging and communications.

As Touche Ross points out, the name of the game changes with the introduction of these services. "A major emphasis is reducing branch labour and automating branch operations," the report says. The basis for investment begins to migrate from cost reduction to maintenance of market position.

Most critically it points out: "In most cases, the centralised data processing function maintains control over technology strategies. As a result, the technology implemented often does not meet customer needs."

Batch-orientated computing is not suited to these transaction-orientated operations. New computing systems have had to be installed: new data communications networks to handle the volumes of traffic expected.

As the financial institutions invest in this new capability, the drawbacks and disadvantages have begun to make themselves apparent.

This year the Bank for International Settlements (BIS) warned of the dangers of hardware malfunctions, power supply failures, and industrial action where automated funds transfer systems were involved.

Most banks, it pointed out, can no longer rely on manual procedures as a fallback security measure.

"With international banks operating in most of the world's banking centres, the technical inability of a bank to fulfil its commitments in one centre may interfere with final settlement systems elsewhere."

All of which is the reason there is so much interest in what are called "fault tolerant" computer systems for banking operations. The most popular manufacturer of these machines is still Tandem of the U.S.,

although Stratus, another U.S. company is also beginning to make its name in banking circles.

Tandem and Stratus computers have been specified for systems which involve providing an "electronic window" into a bank's main data files.

This is perhaps the most critical technological question that bankers face. Virtually all the new and powerful delivery mechanisms they see as the key to their futures depend on direct transactions between the customer at a terminal and the bank's own files.

Enthusiastic

The thought is enough to give most bankers apoplexy. It is a little like letting a monkey with a quill pen loose on the old accounts ledgers: there is no knowing how much damage could be done.

It seems, however, that although there is massive activity in the banks, building societies, trusts and so on, and although suppliers are offering a cornucopia of new products, progress in some of the key areas may be slower than expected.

Electronic funds transfer at the point of sale (EFT/POS), the replacement of cash and cheques with a plastic card, is one example. The banks are enthusiastic because they see it as a way of cutting costs. Retailers are dubious about the benefits and the public sceptical or apathetic.

The same seems to be true of banking from home in the UK and U.S. although progress has been rapid in West Germany and France.

Even in the heart of London's finance industry, much of the City seems unclear about what sort of technology it should employ and why.

After the earthquake and the tidal wave, there is still electronic culture shock to be overcome before the cashless society can be said to have arrived.

BANK OF MONTREAL (CANADA)

CREDIT COMMUNAL BELGIQUE (BELGIUM)

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ABBAY NATIONAL BUILDING SOCIETY (UK)

BANCO DI ROMA (ITALY)

BANCO DE SANTANDER (SPAIN)

BARCLAYS BANK (UK)

SAAMBOU BUILDING SOCIETY (SOUTH AFRICA)

FTS (UK)

COMMERZBANK (WEST GERMANY)

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Computers in Banking and Finance 2

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3476	DRESNER	FT 1 1155-85	9 11	3512	ORISNER	FT 250 62 77	9 13		
3530	SWISS BANK	ZUR 1 1155-85	9 12	3540	CR SUISSE	ZUR 260 65 75	9 13		
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09.10 DOLLAR CONTINUES CLIMBING AGAINST GILDER, EMS STEADY									
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The rush to get on-line

Developments
in the UK

ALAN CANE

IT USED to fit inconspicuously into the Management Services Department. Now if you telephone any of the UK clearers with a query about cashless shopping or down-time on cash dispensers, likely as not you will be put through to "Electronic Banking".

The big UK banks, led by Citibank with Bank of America, Chase, Chemical—and the rest in hot pursuit—have boasted such refinements for some time now, but it is comparatively new to the UK.

Yet these new electronic banking departments are more than mere affectations, pale copies of their aggressive American counterparts. UK banks and financial institutions are at last taking electronic financial services very seriously.

One critical piece of evidence is the planning and financial resources now being poured into high capacity data communications systems, the networks needed to support the substantially higher volumes of business expected with growth of automated teller machine links, branch processing capabilities and Saturday opening.

The resources needed are huge but there is an alternative. Earlier this month, Barclays announced it was going to spend \$40m over five years to create a new, country-wide data communications network. The funds are being spread roughly three ways between British Telecom which will provide the telecommunications lines, IBM and the Canadian telecommunications company, Northern Telecom.

Virtually every area of the UK financial scene is currently in ferment over new technology from insurance companies banding together to inform themselves about expert systems—the Aries project—to the worried haste in the Stock Exchange as members and the Exchange itself hurries to put in place effective automation before the "Big Bang" in October 1986.

There are four areas, however, where banker's minds and the minds of the leaders of other UK financial institutions are particularly concentrated.

The first is the development of on-line real time systems. This represents the biggest task at any rate for the banks. Other smaller, more agile organisations are often at an advantage here.

The TSB Group, for example, claims to be the only bank in the country to offer an on-line real time computer system capable of providing instant, up-to-date account information to branches and customers.

According to TSB: "The system is also ideally suited to future developments such as electronic funds transfer at the point of sale, reciprocal arrangements between banks for the use of cash dispensers and home banking."

Why should the TSB and others seem to have an edge? Despite the occasional error,

the big banks have got back-office automation fixed. The problem is that requirements have changed and the systems so well tuned to batch accounting are slow and ungainly when faced with the need to provide up-to-date information immediately.

On-line means the computer is connected directly to a terminal from which a bank staff member or a customer is making a request for information. Real time means the information is delivered immediately and directly from the bank's computer files.

Such a way of working presents the banks and other financial institutions with a number of problems. First, their mainframe computers were designed to process large numbers of records at high speed in batches. They were not designed to be interrupted continuously to provide information or accept new data.

Second, the banks have to decide how best to let their staff and their customers see into their records, how best, in fact, to provide an "electronic window" into all the information they have stored.

Why should it be necessary at all? An important reason is that the growth in transaction volumes from wholly automatic devices like automatic teller machines, cash dispensers—especially when they are linked into large networks—means that an institution's exposure can change dramatically without it being aware of the fact unless it is monitoring its position on-line in real time.

The second major theme is inter-institutional charges for shared services. The best example is probably shared ATM networks. Full feature ATMs pay out cash, deliver

account information, take orders of cheque books and statements and can be programmed to provide other services.

All the clearing banks have extensive networks of their own, and Barclays, and Lloyds and Midland and NatWest have reciprocal agreements for the dispensation of cash from each others' machines if not for the transfer of account information.

Building society plans to challenge the bank's with a substantial shared network fell apart when the bigger societies claimed they would be shouldering most of the costs for a disproportionately small share of the benefits.

Now a number of ATM sharing networks have been announced involving building societies, savings banks, and other institutions. Now many of these organisations are beginning to learn that reciprocity does not always make you money.

The benefits, in fact, are frequently biased in favour of the smaller partners. But the equation for whether they should be charging each other for reciprocity agreements and how much, is complicated by the fact that some of these expensive facilities are so underutilised it is worth low reciprocity fees to encourage use.

The third theme is the question of the "electronic window" into the bank's own computer files. It is most acute in the case of corporate cash management. The UK clearers all provide electronic cash management services through third party vendors—a computer bureau offering a data network and software to extract information from the bank's com-

puters and format it for customers.

The disadvantage with such an operation is that the customer is restricted to the formats provided by the bureau. Furthermore, costs of the service can rise dramatically with use.

The same is true of conventional business-based data processing. In the late 1970s, ADF, a U.S. bureau, and others solved the problem with a solution it called "on site". It provided the client with a powerful computer, on his own premises, for his own use, leaving up where necessary the bureau services.

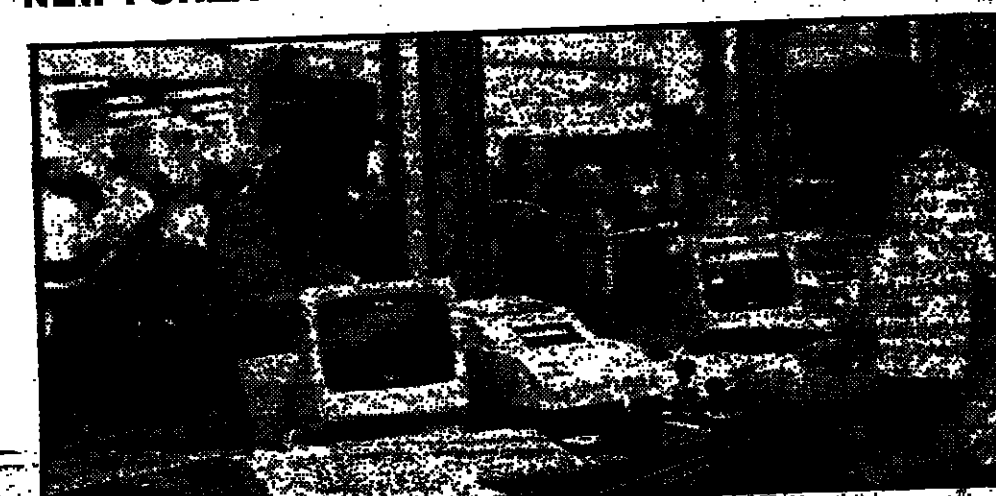
Now companies are providing an analogous service for financial community networks. For example, has been the first European bank to take a "Net" from the U.S. bureau, NDC. It involves a terminal computer on its own premises with special software to retrieve information from the mainframe files.

Another system, Forte, marketed in the UK by the C&G group is expected to be sold to another UK clearer within the next few months.

The fourth trend is towards the purchase of packages. The big banks are packaging their exchange origins, continuing to be the biggest seller nationally.

ATMs are controlled by networks like ONZ and Base 34 and are sold as packages. The days of the big bank data centre with armies of programmers creating bespoke software for the bank's special requirements would seem to be numbered.

NEW FOREIGN EXCHANGE SYSTEM AT AIRPORTS



Midland Bank's International division has selected new foreign exchange counter terminal systems, worth \$200,000, for its branches at Gatwick (above) and Heathrow (below) and open 16 hours a day every day of the year. The first airport installation of the ISC "Firmade" system has been operational at Gatwick arrival hall since June where the Midland branch handles an average of 2,500 transactions daily for the purchase and sale of foreign currencies.

The ISC system can process transactions in a hundred different currencies and print receipts. In all, some 40 different types of transaction—including domestic banking—are controlled by the system which is claimed to speed-up cut-off-day banking across multiple currencies and provide rapid, comprehensive bank reports.

Installation of the second "Firmade" system at Midland Bank's Heathrow branch is expected by the end of this year.

The ISC Systems (UK), based in Milton Keynes, is a subsidiary of ISC Systems Corporation of Spokane, Washington, which has a turnover of £150m a year. Among its customers are 117 U.S. commercial banks and more than 1,500 (building society) clients. In the UK, ISC-users include the Peckham Building Society, Midlands Building Society and Principality Building Society.

Slow advances on a bumpy road

West Germany
JOHN DAVIES

FOR THE most part, West Germany's banks are still inclined to give the benefit of the doubt to the country's videotex system, Bildschirmtext (BITX). Although disappointed by the slow pace of its development, many bankers still believe that BITX has the potential to play an important role in developing the country's electronic financial services.

But the small-like pace of BITX shows just how long and bumpy the road to a cashless society is proving to be. It has served to reinforce the cautious approach which many in the West German banking community adopt to visionary technological schemes.

The original concept of BITX as a mass medium has long since given way to a more sober view. After all, it has only a modest total of about 32,000 users, with the number growing by about 800 to 1,000 a month.

Via ordinary telephone lines, users are able to call up data from about 3,800 information providers through the sophisticated computer network which IBM has set up for the Bundespost, the postal and telecommunications authority.

One of the key advantages of BITX is that a growing number of external computers are being connected, including mainframes of major banks. As a result, West Germans willing to buy the necessary equipment to call up BITX can carry out banking transactions from their living room.

The cost of this equipment is not exorbitant and is coming down, but it is still obviously much too high for most individuals. BITX is therefore considered unlikely to catch on in West German households for some time to come.

It is businesses (notably

small to medium-sized ones) which are expected to be the main users of BITX for banking and other purposes in the immediate future. In this scheme banking data into a personal computer in a company's finance department. With auto-dialling, the PC can pull in data from various banks for further processing, along with data from other sources, external and in-house.

A number of major banks—and some innovative smaller ones—are already offering electronic cash management schemes which envisage a part being played by BITX. Dresdner bank, in particular, has been making strong efforts to promote its electronic service including the debit package which uses BITX. Among the latest to launch a service of this type is Bayerische Vereinsbank, with its headquarters in Munich.

With competition between banks in West Germany very intense, it is not always easy to bring about consensus or compatibility. This is evident from the current controversy about the savings banks' plans for their own nationwide plastic card, the S-card. These plans clearly have implications for the Eurocheque (EC) card and for the way West Germany moves towards electronic Point-of-sale (POS) in shops.

Rival bankers have strong misgivings about the S-card, believing that it may undermine the EC card. The EC card has been built up as a standard—to be used as a bank guarantee of customers' cheques (up to DM 400 per cheque) and as a key to cash dispensers and account statement machines. But the savings banks argue that only half of their 20m account customers have an EC card. The other half could be deprived of new electronic financial services based on the EC card, they argue.

With the new nationwide S-card, savings bank customers will be able eventually to get access to their entire account (plus any agreed credit) from automatic machines at any savings bank in the country. They will be able to do this through a sophisticated network of computers which the savings banks have been in the process of building up.

The savings banks also want

least for corporate clients, especially for small to medium-sized businesses, they see interesting potential applications.

One company which has found a sizeable niche in this field is the Munich-based software house of Computeranwendung Fuer Management (CAW). It was among those who recognised the need to ensure the compatibility of the BITX data offered by various banks and has established strong links with major banks in pursuing this goal.

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the S-card, rather than just EC cards, used in any point of sale system to be set up in West Germany. Through a link-up with the savings banks' computer network, transactions would be made on a decentralised basis from customers' accounts.

West Germany already has embarked on some modest POS experiments in Munich and West Berlin, and bankers have been considering when and how to widen the trials. But POS still has a long way to go, as there are many questions to be answered by banks, traders and suppliers of equipment—including what role chip cards, with microprocessors, may play in POS.

Streamlined

The Bundespost, meanwhile, is taking steps to streamline operations at Post Office branches, including its banking services. It has given an order to Nixdorf for up to 4,000 terminals, complete with software and print-out devices, to be delivered in 1987 and 1988.

These are the first of about 20,000 terminals which the Bundespost plans to install eventually to record and control the sections of the counter from sale of stamps to charging of cheques and savings account deposits and withdrawals. The terminals are envisaged as stand-alone devices but they may become part of a more sophisticated network of some indefinite size in the future.

At present a lot of work is being done to streamline the Post Office branches' operations. The latest scheme will help to streamline operations and underpin the Bundespost's competitive position as against banks which have invested huge sums in computerisation and terminalisation.

Computers in Banking and Finance 3

Operation catch-up under way

Advances in the U.S.

PAUL TAYLOR

THE WAVE of financial deregulation in the U.S. has forced financial institutions to rush headlong into another revolution of sorts. This is the technology revolution and it is changing the way U.S. banks and other financial intermediaries not only do business, but type of business they choose to do.

Interest rate deregulation, fundamental changes in the operation of the financial markets and new competition from outside the traditional boundaries of the industry, have combined to encourage institutions to take a closer look at product lines, profitability and costs.

At the same time customers, both individual and corporate, are demanding ever-more sophisticated products and services together with direct access to their accounts.

In the banking sector this has produced an explosion of activity as managements have realised that the very future of their institutions may depend on the effective and efficient use of data processing and integrated data bases.

A recent report by Salomon Brothers, the Wall Street Investment Bank, entitled "Technology in Banking—A Path to Competitive Advantage" concludes, among other things, that "in an increasingly competitive environment, electronic banking is not an issue that financial institutions can afford to overlook."

Potential profit
The report also suggests that there is "a positive correlation" between the potential profitability of various lines of business and "the degree to which technology can be employed to differentiate product and service offerings."

U.S. banks have long been considered behind most of their European counterparts in introducing technology, even the basic automated teller machine (ATM), to their business. But that is changing rapidly, encouraged in part by declining equipment prices coupled with improved reliability and increased performance. For example, ATM prices have dropped dramatically recently helping spur a 45

per cent jump in the number of ATMs installed in the eight major national networks to over 32,500 in just the first eight months this year, according to Bank Network News figures.

Indeed, almost all the U.S. majors have committed themselves to a massive "catch-up" programme of investment in state-of-the-art telecommunications networks, computers and other electronic equipment. For example, Manufacturers Hanover has recently completed a \$50m five-year project to install a private, integrated worldwide telecommunications network linking its branches in 87 cities.

According to the Salomon Brothers estimates, major U.S. banks, led by banking groups like Citicorp, Security Pacific and others have invested \$7bn in electronic banking technology over the past five years.

Salomon Brothers also estimates that the U.S. commercial banking industry as a whole spent between \$80m and \$100m last year alone on computer processing as a result of "sizeable investments in both hardware and software."

What is more, the report also suggests that the U.S. banks now spend a higher proportion of their non-interest expenditures on automation than any other industry with the exception of the data-processing industry itself.

Systems and telecommunications have now become essential components in virtually all lines of business in commercial banking," say the authors of the report. Among the 35-bank groups examined in detail by the Wall Street firm, the report suggests automation-related expenses now account for 11-15 per cent of total non interest costs.

The banks' growing investment in data processing spans across the full range of their businesses, from corporate cash management accounts to retail banking, consumer credit services, check clearing and trading. At some banks sophisticated software is now being used increasingly to monitor risk exposure, assess the profitability of product lines and even specific transactions, and target potential customers.

Meanwhile systems designed by companies such as Dallas-based Hogan Systems and Inter-net will allow banks to manage virtually all their foreign exposure. The Internet system, for example, addresses 16 major

activities including funds transfer, loans and deposits and communications.

While the rapid growth of linked ATM-networks and electronic payment systems is perhaps the most immediately visible sign of this "back-room" revolution, its implications stretch far beyond the traditional confines of corporate and retail banking business.

In the U.S. "home-banking" on personal computers has

vies industry. On Wall Street, for example, the investment banks and brokerage firms have dramatically stepped up their spending on PCs, heavy-duty data processing equipment and on software and the proliferation of electronically delivered financial information that Reuters, Dow Jones, Telerate, Quotron and others offer.

According to some industry estimates, securities and commodities firms spent almost

efficiency and cut costs. Such investment may also prove the key in the widening move towards expanding exchange operations through global linkages. Both inside the exchanges and outside, through companies such as Instinet, automated trading systems are emerging which can electronically execute trades and deliver customer confirmation virtually instantly.

It is probably too soon to fully gauge the effects of this new technological revolution on the way Wall Street operates. But like the commercial bankers, some securities firm executives are already questioning where the changes will lead, and whether the costs are justified.

Among the findings of the recent far-reaching "Delphi" study prepared by the U.S. Securities Industry Association and Arthur Anderson, the accounting firm, the study noted that technology costs are expected to rise more than any other cost category as securities firms attempt to remain competitive.

However, the "Delphi" study, compiled with the assistance of senior securities industry executives, notes, "there is an uneasy feeling that these particular costs may be out of control."

Even more strikingly the study revealed that, despite the already massive investment in technology and the further increases planned, some industry executives remain unconvinced that technology will substantially improve their competitive advantage.

Nevertheless, there is, throughout much of the U.S. financial services sector, a realisation that the initial costs associated with introducing data processing systems are costs that probably have to be borne—in the hope that they will eventually generate promised savings and thereby help determine the industry's bottom-line winners and losers.

Or as Salomon Brothers' report concludes, "in general, we continue to believe that the most successful banking organisations in the future will be those capable of delivering products and services at the lowest effective cost."

"The challenge for bankers—and others in the U.S. financial services industry—is that in order to become low-cost producers, they must address and plan the various elements of electronic banking 'in an integrated fashion to compete and thrive during the remainder of this decade.'"

U.S. automated teller networks

Network	No. ATMs Dec 1984	of ATMs Aug 1985	Access card base at Dec 1984 (m)	Access card base at Aug 1985 (m)
Citrus	6,471	8,119	27.3	30.5
Plus	4,875	5,617	28.6	48.6
Express Cash	3,290	5,294	2.1	2.9
Visa	2,340	4,500	28.0	45.0
Citishare	2,400	2,900	8.5	8.5
The Exchange	1,690	2,787	2.4	6.1
Nationnet	1,494	2,400	12.9	10.0
Master Teller	1,900	2,000	2.0	6.0

Sources: Bank Network News. Research: Rivka Nechama.

barely emerged from the test phase and most industry analysts agree that it will be several years before banking-at-home becomes profitable. But, spurred by the massive investments of banking groups like Chemical, which is thought to have spent \$10m to \$20m developing its Pronto home banking system, most industry experts believe home banking packages will proliferate as customer acceptance increases.

At the other end of the spectrum, banks are beginning to grapple with the complex problems of building integrated data bases and in house management information systems. Indeed, perhaps the greatest danger inherent in the bank's rush to expand electronic systems is that failure to integrate systems could reduce at the full potential cost benefits and lead to disengagement. As the Salomon Brothers' study notes, "the fragmented approach to electronic banking adopted by many financial institutions has produced such counterproductive results as competing networks and misdirected applications of resources, thereby stifling increases in productivity."

Such concerns are also beginning to emerge in other sectors of the U.S. financial ser-

\$55m last year on software, integrated systems, data processing and data capture. The same studies suggest this spending could increase by over 20 per cent over the next five years.

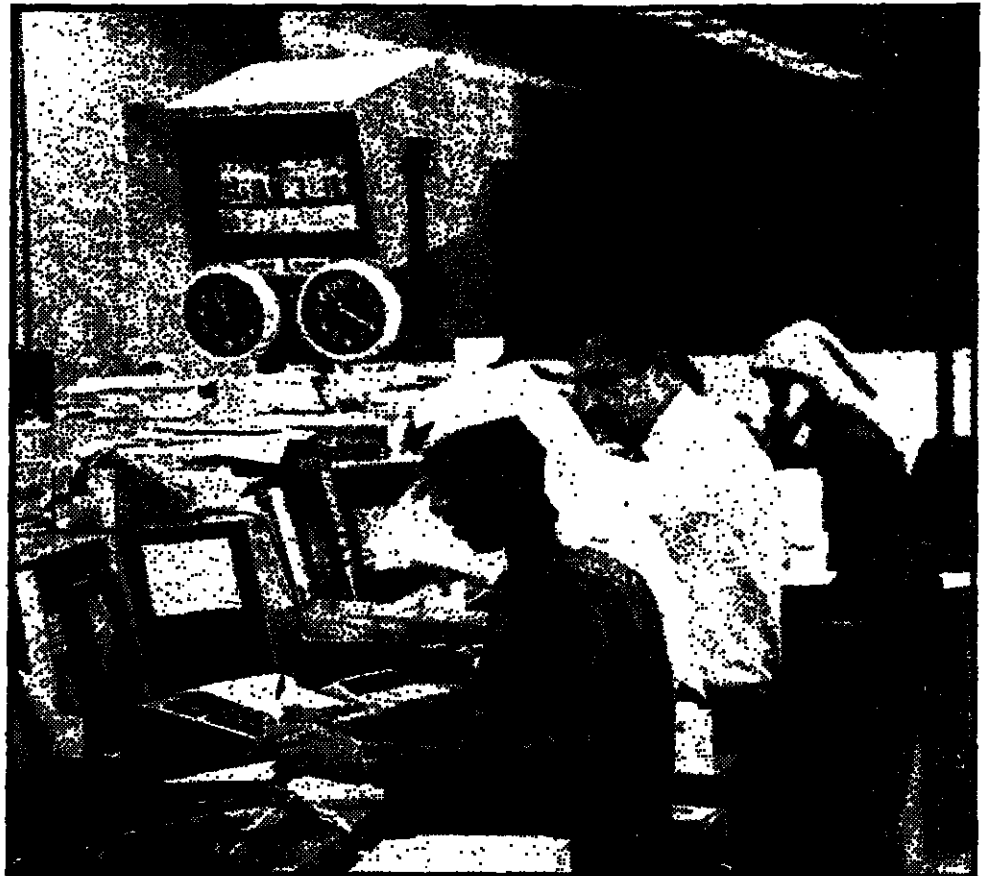
Among the major Wall Street firms hardly a week goes by without an announcement of another big contract being signed. According to Wall Street Computer Review, a specialised industry magazine, E F Hutton plans to spend \$30m to \$50m over the next two years on mainframes, mini-computers and terminals. Prudential batch spent \$37m last year on hardware and software and Merrill Lynch plans to spend about \$40m alone on PCs for its account executives.

Like the banks, the big Wall Street firms are investing in computer technology both in response to increased competition and thinner margins on their basic brokerage and other businesses, and in order to enhance their product offerings and marketing skills.

The impact of this investment is already apparent in the market place and on the exchanges which are themselves investing heavily in technology in order to handle higher trading volumes, improve operating



Brokers at Tokyo's Tanshi money house in Japan



The foreign exchange dealing room of Gulf International Bank in Manama, Bahrain

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Computers in Banking and Finance 4

Major shift in automation strategy

Italy

DAVID LANE

BRANCHES provide the target for the automation offensive which is underway in Italian retail banking. This is a significant shift since the 1970s, when the major effort was given to head office functions and the creation of large central data processing centres linked by real-time communications to branch networks.

"Our emphasis on branches is partly a result of a decision to decentralise which was taken six years ago, but delegation of authority and responsibility was first of all an organisational choice and not decentralisation of data processing arises from this," says Marco Martini, Banco di Roma's director of information systems.

Data processing at Italy's fourth largest bank is being structured around 11 regional computer centres, each enjoying a large degree of autonomy. Cheques are now processed at local level and other procedures which will be the job of the regional centres include loans and credit risk, foreign exchange and import-export.

In common with Banco di Roma, other Italian banks are currently reviewing or renewing their information systems. Last year Banca Nazionale del Lavoro commenced a global overhaul of its information structure, its large central computers, data transmission networks, peripheral stations and terminals. At the same time Italy's biggest credit institution

initiated a radical reform of its organisational and accounting systems and methods.

Banca Commerciale Italiana has been studying the possibility of the total renewal of data processing systems in its foreign branch network. At home, the bank has been looking at teleprocessing for stock exchange operations and the real-time processing of loan risk and default procedures, as well as a project for setting up its own data transmission network using advanced technology.

During the early 1980s it was fashionable to predict a rapid decline of the mainframe and its replacement by totally distributed systems. This has not happened in Italian banking. However, Ipacri (the central organisation for automation in Italian savings banks) believes that technological scenario does point to a significant reduction in the space available for large central computers.

Key venture

For Ipacri the main problems which are now being faced, and seem likely to be posed in the future, are those associated with managing the information needs in branches. This means getting the best out of work stations and the hardware used by customers.

Indeed, a key venture currently being undertaken at Ipacri is its "branch project."

"The focal point of the innovation process is the bank branch and the changes which it must undergo in order to become an effective sales point and manager of service offered

by the bank," say an Ipacri spokesman.

Ipacri describes a new concept for the bank branch in the Italian environment. Over and above the traditional banking services, it must be able to offer customers a wide range of financial services, as well as making self-service operations available both within the branch itself and at the customer's home or place of work.

However, the savings banks are certainly not alone in pursuing the idea of selling new products, introducing new procedures and installing new equipment in branches. Credito Italiano says that it has completed a technical/organisational study for restructuring branch services, the main objective being to improve assistance to customers. Banco di Roma is treading the same path.

At the end of last year the Istituto Bancario San Paolo di Torino launched its "Project 90," a model for the bank's branches in the 1990s. "Project 90" aims to give customers better and wider services, integrating new technology into a new organisational structure. It is a project in which ergonomics and layout play key roles.

With the growing emphasis on branch operations, it is not surprising to find that Italian banks are spending heavily on terminals. Three years ago the ratio of computer terminals to staff at the San Paolo di Torino was one to seven. Under "Project 90" it is planned that each terminal should be shared by just two employees.

Having completed a study of terminal requirements, Banca

Commerciale Italiana has started to renew terminals in its national branch network. A significant number of the existing units will be progressively replaced by intelligent terminals. Banco di Roma is also upgrading its hardware. According to a survey of the banking market undertaken by Honeywell Information Systems Italia, the total number of terminals installed in 1984 rose by 28 per cent.

Though personal computers have entered the scene at a time when increasing attention is being focused on branches, their use so far has been mainly limited to head offices. The explosive growth of PCs, whose numbers are estimated by Honeywell to have risen by 150 per cent last year, has hit the centre rather than the periphery of Italian banking.

Notwithstanding the huge boom in purchases of personal computers, their development potential in banks has definitely not been exhausted.

"Many users have not yet completed trials and it is expected that only during the course of this year and next that there will be a more generalised use of the PC, both at the centre and in branches," notes the Honeywell survey.

The computer manufacturer looked at the areas of use and applications of the personal computer in Italian banks. Most frequently they are being used for word processing, the case at 45 per cent of installations. Honeywell found that 28 per cent of PC installations are used for spreadsheets, 25 per cent for data base, 19 per cent for staff management and 18 per cent as terminal emulators.

Communications management (4 per cent), graphics (4 per cent) and foreign exchange/shares/bonds applications (8 per cent) appear to be areas of lesser importance at the moment.

Scope for growth of personal computers in Italian banks is underlined by one simple statistic. The average number of PCs in those banks where they have been installed is less than 10. While the majority of PCs are at present used in stand-alone mode, the interest for tomorrow lies in connecting PCs to mainframes, not just as terminal emulators but to integrate with, and allow the user direct access to, the bank's information system.

Prospects

Objections to the spread of computing power appear to have been overcome.

"Personal computers provide one of the main areas of development for the future," affirmed Marco Martini at Banco di Roma.

As well as serving as intelligent terminal and use at the counter, Sig Martini sees PCs becoming essential working tools of branch staff in selling new non-banking financial services to customers. Growing awareness of economic realities lies behind the emphasis being given to new services (consumer credit, home loans, unit trusts, portfolio management) and automation of traditional activities. Banks believe that normal banking operations are becoming less profitable, so diversification into more remunerative areas and cost-cutting through

automation are now the watchwords.

Italy's first experiment in electronic funds transfer at point-of-sale (Eftpos) was launched by Enidita and the Banca Piccola Credito Valtellinese at the skiing resort of Bormio, earlier this year, during the world championships. Another trial involving the larger banks, and on a national scale, is now getting underway.

However, Italians are very attached to cash, whereas plastic cards have not been so widely accepted as elsewhere in Europe. But the Bancomat National cash-card, which boasts about 3m holders, may perhaps now be getting properly airborne. A senior manager at the Monte dei Paschi di Siena said that the Sienese bank has experienced a doubling in the use of the card this year, compared to 1984.

According to this manager, Eftpos based on Bancomat ought to be successful and he foresees its rapid expansion through the main supermarket chains, at railway stations and along Italy's extensive auto-strada network.

Moreover, he is optimistic that the national credit card system, which will start operating next year, will yield good results, but on condition that the banking system manages to agree on a single unified card for all operations.

Behind the scenes, and invisible to bank's customers, work is progressing on the National Data Transmission Network. This is due to start up in January and will initially link between 35 and 40 of the largest banks, together with the central organisations of the



Olivetti, which dominates Italy's electronics sector, specialises in banking equipment. Here its personal computer is being assembled at its Scaramagno plant

savings banks and popular co-operative banks.

This data transmission network employs the procedures developed by Ipacri for the savings banks' own Stachi, network.

Italian banks also turned to Ipacri for Bancomat, the national system being based on the savings banks' category but, sometimes, appear old-fashioned, but in adopting new technology it has been ahead of the rest.

Italian banks, individually and collectively, have made considerable efforts in auto-

mating since the mid-1970s, and the exercise has been costly. There is widespread consensus over revealing what has been spent, but based on Banca di Roma's expenditure of about 1,100bn during the phase of decentralisation, a figure of between 1,500bn and 1,2,000bn would be a fair estimate of what has been spent overall in the past ten years.

As to the future, Marco Martini has few doubts. "Expenditure seems set to continue at the same rate. It is difficult to see any slow-down over the next ten years," he says.

Impact felt far and wide

France

DAVID MARSH

THE USE of computers in banking in France is having a fast-growing impact not just on the financial service industry but on French people's general way of life.

Introduction of home banking terminals based on the Minitel videotex system being progressively introduced around France by the Direction Generale des Telecommunications (DGT) is part of the general revolution in popular use of electronics advances. Together with new electronic payments systems based on the French-invented "smart cards," such technology is greatly increasing the sophistication with which French people make transactions and investments—prodding forward innovation and change in the overall financial services area.

Computers in banking, too, have major repercussions in the overall economic sphere. Purchases of data processing equipment by the banks, now concentrated less on the large computers at central locations than on decentralised work stations and terminals, accounts for about one-fifth of the nation's total spending on information technology.

On some estimates, the banks will have installed 200,000 such terminals for branch and head office personnel by 1990, compared with 25,000 at present.

Forecasts that such rationalisation could create the need for job cuts on the level of reductions in the steel industry are almost certainly exaggerated.

Nonetheless, serious commentators such as M David Dautremont, chairman of Credit du Nord, have advanced the possibility that 15 per cent of bank employees—a total of 60,000 jobs—could be under threat from new technology. The banks' challenge will be to try to come up with new employment in areas like financial advisory services and marketing for staff whose routine tasks are increasingly being carried out by machines.

About 30 French banks now offer home banking services to their customers via Minitel screens. Medium sized banks such as Credit du Nord and Credit Commercial de France—which launched the first French home banking terminals amid a blaze of publicity in December 1983—are using such devices as a marketing tool to try to increase their share of retail deposits. Foreign banks such as Chase Manhattan have also launched electronic retail banking services to attract high-income accounts.

Customers are gradually being offered services spreading beyond simple balance-checking and making of transfer payments between accounts. Sophisticated programs allow clients—on the basis of services already offered to corporate treasurers—to monitor the value of investment portfolios and switch between different instruments.

Home banking services are being introduced by many banks deliberately as a long-term strategy. The most lasting result of the banking computer revolution is perhaps that Bull—which profited from a series of Government-directed orders placed by large banks such as Societe Generale and Banque Nationale de Paris during the 1970s and early 1980s—has in recent years had to fight much harder in the market place against IBM. That has toughened Bull—and thereby been of benefit to the entire French computer industry.

leader. Computerisation programmes are resulting in heavy spending years before the anticipated pay-back in terms of staff reductions or increased market share. As an example, the overall information technology budget of the largest French bank, Banque Nationale de Paris, came to around FFr 800m last year, up by 25 per cent from 1983, for its French operations.

The heavy cost of acquisition of computer equipment as well as automatic teller machines and cash dispensers explains why the overall banking of all French commercial banks rose by 18.9 per cent last year, according to figures from the Banking Commission. Within this overall figure, staff costs rose by a lower rate of 9.2 per cent.

High-spending on the introduction of the smart card payment system around France over the next few years has also led to considerable friction with the retail trade over the new technology will be financed.

Smart cards

The banks last month announced a firm order for 12.4m smart cards from Bull, the state computer group which is the card's main manufacturer. The other 4m cards, for supply by 1988, will be ordered from other manufacturers, led by Philips.

Total spending on the programme, including electronic terminals to be installed in FFr 1bn. The banks will eventually benefit considerably by reducing expensive processing of cheques—which at present costs the banking community an estimated FFr 20bn a year.

But in the meantime the banks will be asking shopkeepers to foot part of the bill for the new equipment. The retail trade, which has fought a vigorous campaign to prevent banks imposing card-like pricing for the smart card system, has just won an initial victory.

Commissions on credit card payments, under a decision announced by the banks in September, can now be negotiated liberally on a case-by-case basis, allowing the larger shops and stores to split costs on a more equitable basis.

The flurry of computer ordering by the banks has made manufacturers of both hardware and software acutely aware of a more competitive environment. Especially because of the shift towards purchases of decentralised microcomputers and work stations rather than centralised mainframes, the tussle for market share among producers has heated up considerably.

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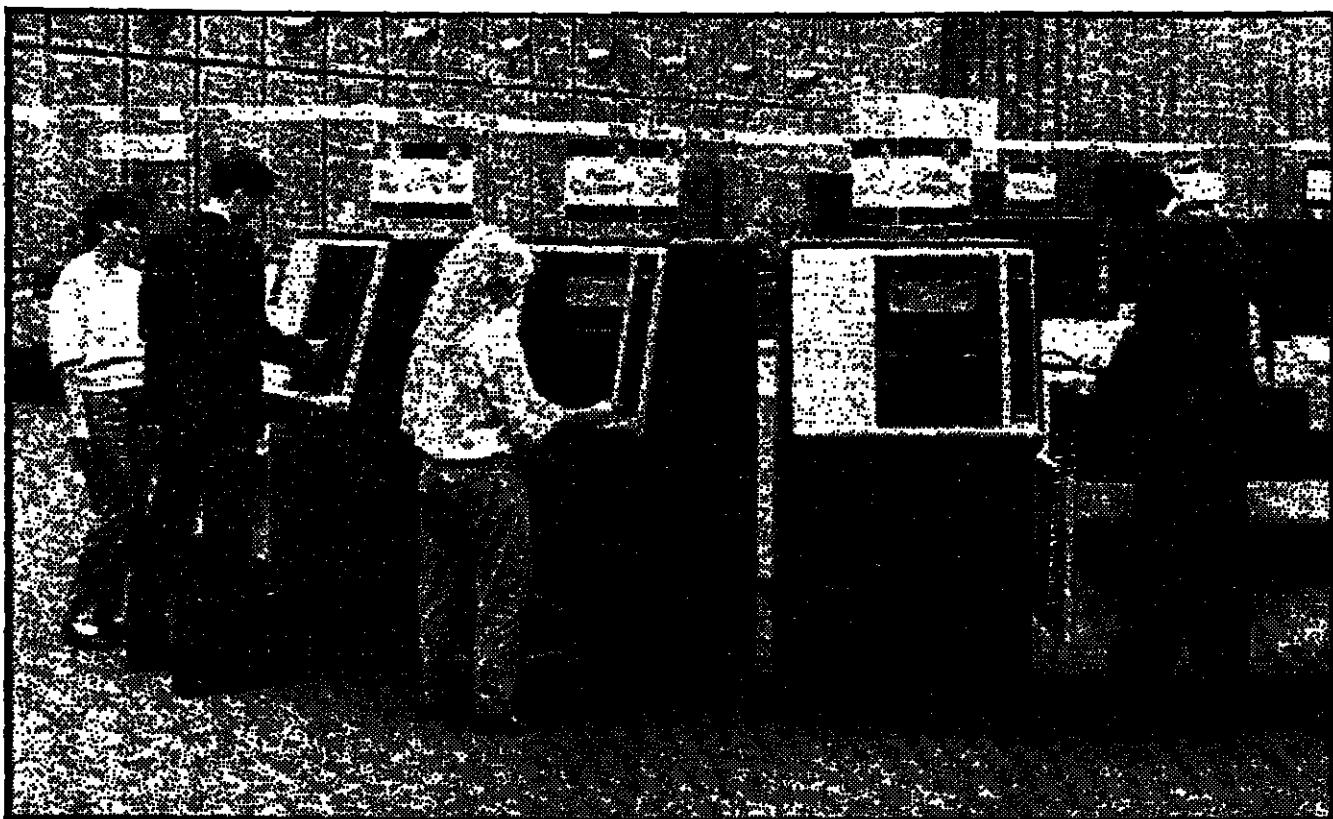
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Kreissparkasse, the Cologne savings bank, has 90 statement printers and more than 100 automatic tellers from Nixdorf used by almost all private giro account holders. Another 50 ATMs with savings book modules have been ordered, worth DM 6.5m

Heavy outlay needed to keep pace

Scandinavia

KEVIN DONE

THE Scandinavian countries have established themselves among the world's most advanced technological banking nations, and the leading banks in the region are well-advanced with the installation of their second generation of computer systems.

The new round of orders in Sweden has largely been shared between the local supplier, the Ericsson group, Nixdorf of West Germany and Philips of Holland.

Mr Morgan Abrahamsson, Sweden's second largest commercial bank, says: "Banks have traditionally been spared from huge investments in premises and machinery, but this pleasant condition is now but a memory, as all major banks are facing substantial investment decisions to keep pace with the rapid electronic development in the finance area."

"The profitability of many of these investments is dubious, and much heavy spending will be undertaken in order not to be left behind in a collective race to undermine the largest part of our income—spread and float."

There is much technical co-operation between Sweden's banks, which means that a number of issues in bank automation which cause controversy in other countries have been solved relatively amicably.

It is estimated that 98 per cent of the Swedish adult population have at least one bank account, and about 74 per cent receive their wages or salaries

directly to their bank accounts. Bills are paid usually through the two competing giro systems—post and bank giro—and cheques are rarely sent through the post.

All cheque clearing has been electronic since the early 1970s and the physical cheque never leaves the branch office where it was cashed, regardless of with which bank the account is held.

All Swedish banks belong to the Bank Giro System, which handles all in-and-out payments via the bank giro on a central basis with identical conditions for domestic payments for all the banks.

The so-called Automatic Cash Dispenser Centre is run by the commercial and co-operative banks jointly and administers the joint ATM network. The K-Credit Card, owned by the Svenska Handelsbanken, Sweden's second largest commercial bank, handles the financing of credit card purchases.

The K-Card will pave the way for the country to introduce electronic funds transfer later in the decade. The card has three functions: it is a cash withdrawal card for use with ATMs, it is also a debit card at the point of sale and a conventional credit card.

No large-scale experiments have been made with point of sale terminals in Sweden, however, and Svenska Handelsbanken believes it will take quite a few years before such terminals are in common use.

Other operations in Sweden owned jointly by the banks include a credit information service and the Securities Register Centre, which administers the system of simplified share registration introduced in 1971.

The investments by the banks in the development of computer technology and the introduction of new data-based services is

causing a significant increase in their costs.

"The design and installation of a new banking terminal system is usually the largest single investment decision undertaken in a bank," says Mr Abrahamsson. "It affects all customers, it concerns the whole staff, it touches the bank's very heart."

According to Skandinaviska Enskilda Banken, Sweden's largest commercial bank, computer technology was previously used primarily to improve the efficiency of internal routines. "Today it is a means of competition, which strengthens the bank's ability to offer expanded, sophisticated services."

Automatic

The S-E Bankers group is continuing the expansion of its computer-based communications system Sebent and during last year its subsidiary banks in Singapore, New York and Frankfurt were linked to the system. In its final form the system is designed to include all subsidiary banks and representative offices.

The system is already being used for the group's daily payments which go via the subsidiary bank in New York, where an automatic dollar clearing system has been developed. In most cases payments are forwarded without manual processing.

This year the bank has installed an advanced computer system—Sebis—at its banks in Frankfurt and Singapore for such functions as ledger account processing, foreign exchange and accounting.

Recognising that rapid payment flows are important S-E Bankers now offers a number of cash management services. These include a terminal service aimed at serving the finance

departments of large- and medium-sized companies.

Through this system companies can control their payments and obtain information about their transactions with the bank, overviews of the balances in various accounts, data on stock prices and currency exchange rates and money and capital market conditions.

Other services are being added including information on the economic situation in Sweden and abroad.

Mr Abrahamsson maintains that although communication with the customer has been the focus of most of the interest in the development of banking technology and services, issues to do with in-house data processing are perhaps of greater strategic importance.

The first generation Handelsbanken terminal system was installed in 1974 and supplied by Philips. It is showing signs of age, however, and since the late 1970s Handelsbanken has been working on the development of a successor.

It has chosen Nixdorf of West Germany, which is working on the installation of a new, unique, custom-built terminal network for Handelsbanken's entire Swedish operations.

The decision to replace the Philips system was taken in 1980, the tendering procedure began in 1981 but it was not until late in 1983 that Nixdorf was chosen.

Joint development work was undertaken last year, test branch installations and pilot installations have taken place this year and installations will be completed next year with completion by 1987.

Rivals move towards compatibility

Belgium

PAUL CHEESERIGHT

GENERALE DE BANQUE, the largest of the Belgian commercial banks has just set up a joint venture company with Cognitive Systems of the U.S. to market new artificial intelligence techniques. One is called Broker, a natural language consultancy system for use in the purchase of Belgian shares. The other is called Telex Reader and it translates incoming telexes into codes which can be used in the inter-bank clearing system called SWIFT.

This wedding of new software to the electronic capability of a bank is natural for a Belgian institution. The Generale, until recently known as Societe Generale de Banque, has been working on artificial intelligence techniques for some time and has brought Broker and Telex Reader to the prototype stage.

But it would not have been possible without the solid grounding in electronic banking that is common in the Belgian system to the extent that the banks claim to be some of the most advanced in the world.

The Generale has in fact lagged behind Banque Bruxelles Lambert in fully computerising its system. But Kredietbank, the third largest commercial bank, also has its own computerised network. And the grouping for all three started in the decision over a decade ago to number accounts in the same way to create a

system of identification for a centralised and computerised clearing system.

The problem for the Belgian banks has not been in how to computerise their own operations. Each in their own way has come to terms with that, not least through large scale training programmes for banking staff.

Virtually all banks in the major chains are in touch with central computers and most operations are done electronically. The standard techniques such as the use of cash cards in machines, not only to withdraw and deposit funds, but also to obtain information like statements of balance are in wide operation.

The problem rather has been in how to spread the use of computerised banking by making it easier for the consumer, whether corporate or individual, to gain access to the system. This problem has been symbolised by the rivalry of the two main cash card chains—Mister Cash and Bancontact.

In a country of some 10m people, at the end of last May 2.17m Mister Cash and Bancontact cards were in circulation, according to Belgian Banking Associates figures.

The Generale, with Credit Communal, a state savings institution, was running Mister Cash, while Banque Bruxelles Lambert and Kredietbank, with Caisse Generale d'Epargne et de Retraite, another state institution, were running Bancontact.

The development of common technical bases on which to handle inter-bank transactions had never stopped the rivalry for customers in a country

where the number of inhabitants for every bank branch works out at 988 against 2,310 for the U.S.

This rivalry resulted in months and months of inconclusive discussions about making the two systems technically compatible as the banks feared for loss of control and erosion of identity in the mind of consumers.

But this year, faced with the resistance of those who could make the expansion of the systems possible, the two teams agreed to make the networks compatible within 12 months. Nobody had doubted that the technical problems could be overcome if the banks wanted to put their minds to it.

Networks

This decision means another quantum leap forward for the Belgian system of electronic banking. It means that the major shops and stores, which had balked at the cost of installing two systems, will now have to contend with only one. Consumers will by virtue of the spread of point of sale terminals, have a much easier access to the computerised system of banking which already exists.

For the immediate future this development seems to be the most significant in spreading electronic banking. There is a base for the networks to operate on. Nearly 1,400 petrol stations had point of sale terminals by the middle of this year, but the number in other forms of retailing was just 524. And these terminals will receive priority in changing the machines so that they take either the Mister Cash or Bancontact cards. Meanwhile, the banks are studying how to bring in a common system of security of electronic banking in other forms is likely mainly to be concentrated in the commercial sector. The banks can and do provide electronic facilities in their own branches. Indeed Banque Bruxelles Lambert has one fully automated branch without staff—but that still means that customers have to go to the facility.

To avoid that, they will have to hire lines from the Regie des Telegraphes et des Telephones, so they can link their own electronic systems to those of the banks. So far, this only makes sense for business, although it is technically feasible in Belgium for anybody with a terminal.

The banks have facilities in place for any company or individual who cares to use them. Banque Bruxelles Lambert's Telexlink service has over 1,000 clients. At Kredietbank, Telex-KB offers not only on-line banking, but also the provision of information like company accounts information and tax assessments. The Generale has its G-Line system.

In each case the banks are in fact making use of facilities which they already have as a simple development from their own internal computerisation. But there is a cost to be met. "The costs connected with the launching of new computer systems," says Banque Bruxelles Lambert, "have been calculated as representing 9 per cent of total annual operating expenditure of the bank, with the latter including both depreciation and salaries of systems specialists."



Svenska Handelsbanken, Sweden's second-largest private bank has developed with Nixdorf a branch computer system dealing with all teller functions as well as personal computer functions like word processing and accounts analysis

Embarrassing lag behind other centres

Netherlands

LAURA RAUN

DUTCH BANKS have cultivated their reputation for sophisticated and reliable financial services, but their financial expertise has stopped short of electronic banking, where they lag embarrassingly behind much of Europe.

That is largely because Dutch bankers have considered their clearing system among the most efficient and safest in the world, and have felt little need to spend hundreds of millions of guilders on new computer equipment. Yet while the Dutch may have avoided some of the problems with transaction security and customer acceptance that have befallen banks rushing into automated services, faster computerisation seems inevitable to keep up with the competition.

Video terminals (VDTs) to hasten authorisation for simple cash withdrawals are rare on bank tellers' counters. The retail customer still has to wait while thick stacks of computer printouts are perused before receiving his money. Only last year banks slowly began issuing personal identification cards, which are too scarce to combat fraud effectively and have yet to speed transactions noticeably.

Automated teller machines (ATMs) for cash dispensing and electronic transfers are much rarer than in the UK, Switzerland and Italy. Commercial banks have only recently agreed to allow customers to use other banks' ATMs, although only half of the 150 ATMs expected to be installed nationwide by the end of this year will be universally accessible.

Savings banks have moved faster into the world of push-button accounting because of their smaller size and more flexible structure. In the early 1970s, savings associations linked their various members with on-line computers, and today boast more ATMs than commercial banks. The efficient-

cies achieved from automation likely to have been a factor in the higher profitability of savings banks compared with commercial banks in recent years.

Meanwhile, the Postgiro—the financial transfer system operated by the post-telephone-telegraph (PTT)—and the national savings banks launched a new personal identification card system in 1981. The card will be tested in Tilburg and Grolle in North Brabant for a year to determine whether national distribution is merited.

Reduced fraud, the card will be tested in Tilburg and Grolle in North Brabant for a year to determine whether national distribution is merited.

The electronically read magnetic stripe, plus secret personal identification number (PIN), are intended to ensure that only legitimate account holders can withdraw money. Customers are being urged to memorise their PIN code to avoid keeping a copy of it next to the identification card, and could face arrest if an erroneous number is given three times.

Experiment

The historical competition between Postgiro and the commercial banks threatens to escalate with a FI 30m, one-year test of electronic payment for petrol in Tilburg and Eindhoven in North Brabant. Due to start in November, the trial will involve 84 petrol stations owned by nine oil companies as well as Philips, the Dutch electronics giant, which is supplying the ATMs.

Festive customers will be able to use their magnetic-stripe ID card to deduct petrol payments automatically from their account. Bank customers, on the other hand, will use a "smart" card embedded with a microprocessor that tells the controlling computer to pay the oil company. Smart cards have no on-line connection with the computer but rely on the microprocessor's memory.

Credit cards, even from oil companies, are much less common than in the UK for example, and the banks would like

to keep it that way. The petrol purchase payment cards are viewed as methods of ensuring that banks retain a central role in clearing transactions.

The more successful card, magnetic-stripe or smart card, could significantly shape the future of the fledgling electronic banking industry in Holland. The commercial banks are keen to see which type appeals more to customers because of the furious technology battle involved in ATMs. Relatively little is known about people's acceptance of transaction cards because they are so scarce.

The magnetic-stripe card requires an on-line ATM, which costs around FI 10,000—or two to three times as much as the ATM activated by a smart card. The smart card is considered safer from fraud but at a cost of FI 25 per piece is much dearer than the magnetic-stripe counterpart.

Nederlandsche Middenstandsbank (NMB), Holland's third-largest bank, is the driving force behind the commercial banks' participation in the petrol experiment, and perhaps the most eager to computerise generally. Mr A. A. Soetecouw, a member of the managing board of NMB, argues that the smart card technically is more versatile and still is cheaper, considering the lower cost—FI 3,000 to FI 5,000—of the ATM, plus the simpler security measures required.

Algemeene Bank Nederland (ABN) and Amsterdam-Rotterdam Bank (AMRO), the first and second largest banks, already have begun with magnetic code ID cards for their ATMs. Yet, while a furious technology battle probably would break out in other countries, such as the U.S., no such conflict is likely to divide the rather cosy club of bankers along Amsterdam's Herengracht.

As Mr W. E. Scherpenhuyzen, chairman of NMB and head of the Dutch Banking Association, has said: "This is not cut-throat competition." Dutch banks have dragged their feet in computerisation for several reasons. One is that they fear to impose on

customers the fees necessary to finance the heavy investment required for sophisticated hardware and software. As much as FI 700m might be needed to install all the computer equipment Dutch banks probably need, according to one executive. Retail customers pay nothing for a current account and actually receive a nominal interest rate on their balance.

It has been estimated that each current account costs Dutch banks FI 100 a year or a total of FI 150,000, which is largely subsidised by fees to corporate clients. But Dutch bankers clearly want to avoid an all-out fee war like that hitting American banks, in recent years.

Complicating

Moreover, Dutch bankers argue that their parallel commercial and Postgiro systems work better than the paper-laden clearing system of the U.S. and UK. But not everyone is convinced. Mr H. Onno Ruding, the finance minister, and Mr Wim Duisenberg, the Central Bank president, have both warned that if the two parallel systems are not merged soon, Holland will fall behind international banking competitors.

Proposals to merge the two systems into a national payment circuit have languished for a decade although hope emerged several weeks ago that a breakthrough was in sight. The belief is that the marriage must begin this year in order fully to integrate the circuit before 1990.

Complicating the integration efforts is the planned spin-off from the PTT of the Postgiro and the National Savings Bank and the merger of the two financial institutions. After a decade of protracted discussions, the new Postbank is scheduled to open for business at the beginning of 1986, but that seems increasingly unlikely.

Still another reason that Dutch banks have shunned faster automation is the desire to preserve peaceful relations with labour unions. Few jobs have been lost to computers and plans for electronic systems are

devised in close consultation with the workers' councils. Bank employees whose jobs have disappeared have generally been retrained and transferred to other departments. The boldest move has been Amro's announcement that it would slash 1,000 jobs over two years in a cost-cutting drive that involves automation.

While complacency has often prevailed in banking circles, however, quashes increasingly are expressed over escalating competition. From aggressive U.S. banks touting high-technology services to corporate clients, Global cash-management systems and real-time information services are among the costly products developed by huge banks such as Citibank, Chase Manhattan and Bank of America.

The relatively smaller Dutch banks lack the financial resources to develop such sophisticated products although less ambitious projects are underway. The leading bank, ABN, will begin next year with a FI 100m "open bank" project to refurbish its 700-bank domestic network in a living-room-like decor with computer terminals scattered about. Rabobank, the large co-operative bank, is to finish a decade-long FI 490m automation project in 1988 that involves on-line computers and display terminals for better client service.

Amro has gradually computerised internal accounting with the help of an in-house management team that travelled widely to study other banks' systems, thereby hoping to avoid many first-generation pitfalls.

Bankers may grudgingly admit that computers are the way of the future, but other projects, such as expansion in the increasingly important London market, are competing for funds. One solution mentioned by a prominent banker is further consolidation in the Dutch banking industry. Mr Andre Balemberg, the former chairman of ABN, hinted at the time of his retirement earlier this year that more mergers may be necessary to achieve the economies of scale required for survival.

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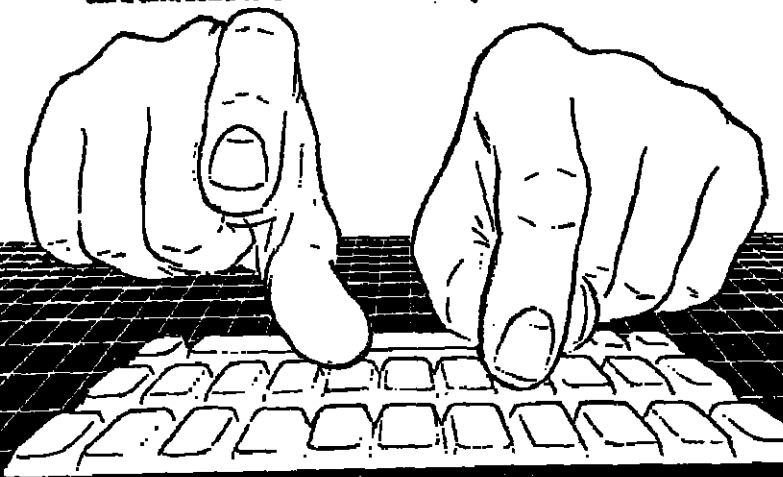
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Computers in Banking and Finance 7

Robots become
a vital part
of marketingAdvances in
retail banking

ALAN CANE

AUTOMATED teller machines, home banking terminals and customer terminals for personal payments (electronic funds transfer at the point of sale) are more than mere delivery mechanisms. Increasingly, they are becoming the most commonly used interface between customers and their bank.

Indeed, in a world where a customer draws cash for daily needs from an ATM in a store or railway station; checks accounts from home using a personal computer connected via telephone line to a bank via telephone line to a bank (perhaps getting expert advice in the same way); and pays for most goods using a plastic card; there may be little reason for a customer ever to visit a branch.

Bank branches will not disappear, although in the UK they are on the decline. Neither will cash. Some 88 per cent of financial transactions are still made in cash in the UK.

But remote banking, using a robot cashier rather than a bank branch, is growing rapidly. Suppliers believe that automated teller machines will be available to customers at railway stations, airports, commercial offices and factory sites within five years, and at most shopping areas within 10 years.

Banks and building societies see things a little differently. Anxious to maintain the human link with customers, they will increasingly be installing lobby machines. Some simple cash dispensers may be placed in an outer lobby with 24-hour access using ATM cards.

Others inside the banks will provide a range of services, including account information, payments capability and investment advice.

So the robot cashier is becoming part of the marketing of the banks services, and commercial advantage will be gained by the use of an

efficient, easy-to-use machine. The ATM has progressed in a few years from a simple cash dispenser to a powerful interactive terminal.

The latest family of machines from NCR, for example, use interactive video, linking a videodisc player with a computer system. Sequences recorded on the videodisc, such as how to make an investment or use the advanced functions of the machine, can be selected by the computer acting on instructions from the user.

The machine operates on-line and in real time with the bank's main computers, allowing, for example, interest calculations to be made in response to figures put in by the customer.

Mr David Anderson, of Philips Business Systems, which markets Diebold ATMs in the UK, says the key features of an effective ATM are reliability and ease-of-use.

Television

"We have not been very good at educating our customers in the use of the machines when we post them their cards," he says. "U.S. banks often insist their customers come to the branch for their cards, where a member of staff shows how to use them."

Banks have taken to installing more than one ATM in any one site to minimise the chances of customer frustration because of a failed machine. In the UK, the National Consumer Council has called for safeguards for customers who lost money through errors involving cash dispensers.

The most disturbing examples involved people who claimed their cards had been used without their knowledge or permission, throwing suspicion on family and friends. One answer is a camera in the ATM to record every transaction.

It is a problem which could become more acute with the spread of home banking. At present, home banking using videodata technology, which displays information from a computer database on a domestic television screen using the telephone line for data transmission, is fairly widespread in West Germany and France.



The TSB has installed NCR automatic tellers in the Fraser Financial Services department at Rackhams store in Birmingham

It has, however, been comparatively slow to take off in the U.S. and UK. A survey by a team of North American consultants under Mr Ken Thacker says: "Home banking is a gamble. There is considerable uncertainty whether it will evolve into a viable, economically sound alternative to the more expensive, conventional branch banking systems."

But it warns: "A significant proportion—15 per cent—of every bank's depositor base is vulnerable to attack by any bank offering a home banking product. And since these are prime customers with large balances that they tend to consolidate, decision makers failing to include this vital statistic in their business case, do so at their peril."

In the U.S. the leader has been Chemical Bank with a service called Pronto with about 21,000 customers. Citibank, Chase Manhattan and Manufacturers Hanover have introduced competing services.

According to The Banker

magazine, the number of subscribers in the U.S. for terminal-based electronic banking services is estimated at 50,000, linked to some 50 banks. Two years ago, Bank of America predicted there would be 25,000 customers for its HomeBanking service. To date it has 17,500, but now Pronto and HomeBanking have joined forces with AT&T and Time to market electronic financial services.

In the UK the pace remains slow. The Nottingham Building Society/Bank of Scotland service, Homelink, has yet to reveal the fruits of its initiative. Midland which has concluded a trial based on videodata screens in its branches is launching one this autumn.

Priorities

The Bank of Scotland has announced its own home banking system independently of Homelink. While all the big banks are interested in home banking, it is not thought to feature high on their priorities.

Personal payments systems (electronic funds transfer at the point of sale) does, however.

The London and Scottish clearing banks are committed to going ahead with EFTPOS and the first three trials should go live around the turn of the year.

The race for the first nationwide EFTPOS system is still open, although the Belgian banks would claim to be clear leaders, with two major cash card chains, Mister Cash and Bancontact, mutually incompatible.

The problem was how to make the system easy for the customer—and the retailer. Earlier this year, the two chains agreed to make their networks compatible within 12 months.

In the drive to automate, it has been easy for the banks and suppliers to pay less than full attention to the ergonomics of what are very new systems. But the psychology of dealing with the robot cashier is critical to the spread of electronic banking and it is in this area that the next revolution should begin.

Suspicion over EFTPOS

Retailers' viewpoints

DAVID CHURCHILL

BRITAIN'S RETAILERS are still keen to see a national scheme for electronic funds transfer at point-of-sale (EFTPOS) operating in the UK before the end of the decade—but they remain a little suspicious about the attitude of the clearing banks towards working together with the retail trades in achieving successful implementation.

Mr Tom McNally, director-general of the Retail Consortium, warned recently that if the banks and retail sectors could not work together on this issue, then the Government might have to step in.

"It really would be shaming to both the banking and retailing industries if two great sectors which have prided themselves on their robust independence from government find themselves being 'nannied' into a national system because of a failure to agree," suggested Mr McNally.

"My talks with ministers convince me that they are not willing to see a national EFTPOS system fail by default because of failure of bankers and retailers to agree."

Retailers' concern over the attitude of the banks stems from the late '70s when the banks first suggested the idea of an electronic funds transfer system at the point of sale. In April 1977 the Committee of the London Clearing Banks approached the Retail Consortium for discussions on EFTPOS and a Terminals Working Group of retailers, mostly at manager level with experience in retail technology was formed.

The first meeting started disastrously. The banks informed retailers how the new system would be designed and how it would work. There was no suggestion of collaboration or participation, with the banks merely seeing the meeting as a useful method of keeping retailers informed of developments. The reaction of retailers present at the meeting was one of incredulity and outrage.

"The meeting nearly broke up there and then," recalls Mr Michael Wilsey of the Consortium. It took some time for relations between banks and retailers to get onto a more

harmonious basis.

Negotiations between the banks and retailers, however, did not fare much better in the early 1980s. In an attempt to keep the talks going along the right lines, the Consortium formed an EFTPOS Policy Committee in April 1984 comprising some 30 members, all of whom were main board directors or equivalent. The council of the consortium gave the committee unprecedented powers to negotiate on its behalf.

The most important decision taken by the committee at its first meeting was to agree that EFTPOS was inevitable and that the banks were the only organisation likely to bring about a national scheme. Sufficient progress was made with the banks during 1984 for a joint Press conference to be called at the beginning of this year to declare each side's commitment to a national scheme.

Yet retailers became concerned at the slow progress of discussions on technical standards and operating procedures—delays not helped by the abolition of the banks' EFTPOS project team and its replacement by an EFTPOS development team under Mr Dougal McCallum.

With a complete change of personnel there has been an inevitable delay while the new chief executive and his staff have familiarised themselves with the project team's work, much of which has been reassessed.

Negotiating

Retailers were also concerned at the decision by the banks in June of this year to launch three limited EFTPOS experiments without prior consultation with the consortium. After the consortium voiced the concern of retailers, fresh talks have started again in recent weeks to see if more rapid progress to a national scheme can be made.

What is the negotiating position of retailers? Initially, they are seeking recognition by the banks that EFTPOS is not simply a banking service provided at the point of sale.

"The retailer is putting much more of his prestige and credibility on the line as the point of customer contact for the service," points out Mr McNally. "Charges for the system must be struck, recognising the investment of all the parties and giving all participants a fair share in the benefits and hence an inducement to accept and make the system work."

Retailers are also concerned that the system should be easy for the customer to use and



Tom McNally, director-general, Retail Consortium

understand, to avoid customer embarrassment at the point of payment by providing means of controlling expenditure so that unwitting moves into overdraft can be avoided.

Mr McNally also believes that the system should be available to all retailers who wish to participate but that individual retailers should have the right to decide whether or not to accept any particular card.

"The system also needs to be simple and easy for retail staff and customers to understand," adds Mr McNally. "EFTPOS must reduce the time taken by customers at the point of payment."

In particular, retailers want to ensure that the response time of the system does not worsen during busy periods—such as Saturdays or sale times—and that it is reliable.

"Simplicity and cost effectiveness dictate that only one device be installed at each point of payment and that the procedure is the same for all cards accepted by the system," he adds.

Retailers are also anxious to ensure that while the best system that can be devised is installed, provision must be made to adopt better practices as they emerge.

"Technology is developing quickly, new equipment and services are coming on the market and there are trials of alternative systems taking place in other countries," points out Mr McNally.

Now that the banks and retailers are back talking together in detail about a national system, optimism is rising that the somewhat strained relationships of the past will be forgotten in an attempt to bring in an effective EFTPOS system throughout the UK.

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Computers in Banking and Finance 8

European time-sharers move on to the second generation

Cash management
SIOBHAN HANEY

CASH MANAGEMENT began in the U.S. in 1946, just after the second world war. It was invented by a customer rather than by a bank—the Radio Corporation of America—which forced its two banks to open the company's mail, remove any cheques and deposit them in the relevant accounts. Since then, cash management services have been an extension of this simple concept.

Electronic cash management systems evolved in the U.S. largely as the result of a highly fragmented banking structure. Although the technology was available in Europe to provide similar systems, there was not the demand for them from corporate customers who were generally satisfied with the services already provided by the countries' unified banking system.

Nonetheless, in the late 1970s, when the major U.S. banks began to bring their electronic treasury products across the Atlantic, European treasurers soon realised what they had been missing. Many of the banks offered the use of their own worldwide telecommunications networks, which meant a much faster, more secure and more efficient service.

But perhaps, more importantly, the U.S. banks brought with them the concept of the treasurers' workstation. Many treasurers had already realised the benefits of having a personal computer and it was therefore an obvious progression for the banks to develop software to run on these computers to provide a solution to a number of the treasurers' problems.

Bank of America, Chase Manhattan, Citibank and Manufacturers Hanover are amongst the many U.S. banks offering electronic banking services in Europe today.

BankAmerica's workstation was launched in Europe in February. Called MicroStar International, the system consists of a set of specialised treasury management programmes which deal with balance reporting, forecasting and modelling and comprehensive cash management.

However, as some banks found to their cost, launching these products on to the European market was not simply a matter of transporting the U.S. versions. Mr Chris Winter, vice-president at BankAmerica, explains: "Some U.S. banks tended to underestimate the changes needed to slot U.S. products into a European market place. For example, you need a whole new programme to cope with multi-currencies."

Major treasury management systems

BANKS	SYSTEM	HARDWARE	NETWORK
BankAmerica	MicroStar	IBM and others	B of A's own network
Barclays Bank	BarCash	Wide range of terminals	FPS/GEISCO
Chase Manhattan	Global Microstation (Infocash)	Any terminal	Chase Data Network and IDC
Chemical Bank	Chemical	Any terminal	GEISCO
Citibank	Citibanking	Any telex or terminal	Infocash
First Chicago	International First Cash	Wide range of interactive terminals and PCs	GEISCO
Lloyds Bank	Cashcall	IBM 3081	ADP
Manufacturers Hanover	Transend		Geonet (MRT's own network) and Telenet
Midland Bank	CMS	Wide range of interactive terminals and PCs	ADP
Morgan Guaranty	MARS and MOROOM	GEISCO and IBM	GEISCO, Global data network, Tymnet and Uninet
National Westminster	NETWORK	GEISCO	GEISCO
Royal Bank of Canada	Royal Command	Any standard timeshare terminal or PC	GEISCO
NON-BANKS			
Automatic Data Processing	Cash Express	DEC IO and DEC 2020	ADP linked by COMTEN
Interactive Data Corp.	IDC	Amдах 1/IBM	GEISCO
National Data Corporation	NDC	Honeywell, Tandem, IBM	

* Wholly-owned subsidiary of Chase Manhattan Bank.

of multi-currencies, each country has a different interest rate structure and a different clearing system. All these things must be taken into account when developing a workstation for Europe."

Michael Gallagher headed a team from Chase, which came over to Europe three years ago, to conduct detailed research into the exact requirements of the European treasurer. They decided that the U.S. products, even with modifications, would

not fulfil the needs of the European market and so, on the team's recommendations, Chase developed a completely new set of electronic banking products on Europe, specifically for the European market.

The Global Microstation was launched in Europe in June 1984. Running on a personal computer, it offers the treasurer a range of capabilities including an automatic link to Chase's Infocash computerised electronic banking service.

operate their cash management services on these networks. Conventionally, banks using a bureau to provide cash management services on a time sharing basis provide information to the bureau which then formats it using its own software and distributes it over its own network.

There are, however, two disadvantages; the customer has to make do with formats devised by the bureau and costs can rise sharply with use. Recently though, two new products have been launched on to the market which go a long way towards solving these problems; FORTE (financially oriented reporting and transaction environment), which is manufactured by Advantage Systems in the U.S. and marketed and distributed by the CAP Group, and NESTS, which is manufactured and marketed by the National Data Corporation (NDC), also in the U.S.

Both these systems provide customers with an "electronic window" into the bank files, enabling them to see their data in a format of their own choice. Earlier this month, there was a major breakthrough in the UK electronic banking market when the National Westminster Bank announced "what it was to license."

"C—the first bank in the whole of Europe to move to a second generation system, away from the time sharing environment. NatWest will spend around £1m to install a Tandem fall-

safe computer (on which to run the system) and to license the software. The system will be installed over the next year. NESTS interfaces with NDC's worldwide cash management exchange and the bank's own database. The system will allow NatWest to provide its customers with such services as account information, funds transfer and foreign exchange. NESTS was launched in the U.S. in 1983 and is already installed at four major banks where it supports more than 1,800 "live" customers.

Many European banks are now looking to move away from time sharing networks which they are finding both expensive and inflexible, although time sharing did initially provide a cheap route for entering the electronic cash management market a few years ago.

Banks now require a new system such as NESTS, which they can tailor to their own needs, over which they have total control and, perhaps, most importantly, which enables them to offer a competitive price structure to their customers.

Certainly, it seems that if the European banks want to compete successfully with their U.S. cousins, they should seriously consider moving away from the commercial networks and examining the new generation of treasury management software. NatWest has set the trend with NESTS and it probably will not be long before other European banks follow suit.

SWIFT'S WORLDWIDE LINKS

Key figures for the Society for Worldwide Interbank Financial Transactions (SWIFT) for 1984:

Country	No. of member banks	Number of banks connected to SWIFT	Processed financial transactions
Andorra	2	3	23,549
Argentina	33	38	266,758
Australia	9	11	1,844,517
Austria	41	46	4,945,144
Belgium	28	46	7,550,479
Bermuda	3	3	117,065
Brazil	25	25	247,391
Canada	8	22	2,392,344
Channel Islands	1	1	—
Chile	13	16	186,334
China (People's Republic of)	16	—	—
Colombia	4	—	—
Cyprus	1	1	211,593
Czechoslovakia	35	37	2,670,141
Denmark	11	14	100,738
Ecuador	9	11	1,935,567
Finland	74	87	8,787,783
France	118	164	14,441,026
Germany	5	14	488,168
Greece	18	64	2,008,922
Hong Kong	4	3	131,811
Hungary	1	—	—
Iran	2	9	484,589
Ireland	12	14	704,529
Israel	150	146	9,649,456
Italy	65	100	3,412,546
Japan	1	—	—
Jordan	3	3	110,108
Liechtenstein	9	26	1,445,169
Luxembourg	14	12	362,458
Mexico	7	2	19,886
Morocco	22	34	6,627,598
Netherlands	2	4	492,221
New Zealand	25	24	2,721,813
Norway	10	13	75,758
Peru	11	13	529,398
Philippines	9	65	1,488,248
Portugal	12	18	1,160,999
Singapore	35	47	1,683,680
South Africa	15	17	3,350,559
Spain	63	79	11,167,168
Sweden	12	—	—
Switzerland	11	—	—
Taiwan	4	—	—
Thailand	38	136	12,967,308
Tunisia	11	21	166,351
UK	157	273	22,251,756
Uruguay	20	—	—
Venezuela	—	—	—
Total	1,158	1,656	129,953,693

The role of SWIFT
SIOBHAN HANEY

IN THE 1960s, communication circuits grew rapidly with major banks struggling to gain a competitive edge. Within a short time, the Atlantic and the European and American continents were criss-crossed by a maze of competing communication networks.

In an attempt to overcome these problems, a group of bankers was called together to work on a message switching project. Out of this broad plan they drew up for the development of interbank communication grew the Society for Worldwide Interbank Financial Telecommunication (SWIFT) as it exists today.

SWIFT was established in 1973 by 239 banks in 15 countries as a non-profit bank-owned cooperative society. It is dedicated to meeting a number of specialised service needs relating to interbank financial transactions.

Shareholders now amount to 1,257 banks in 54 countries, and the society processes over half a million transactions per day. SWIFT is based in La Hulpe, Belgium.

Services centre principally around specialised international transaction processing. The term "transaction" encompasses most international financial functions such as customer transfers, foreign exchange confirmations, bank transfers, documentary credits and so on.

Standards encompass a number of different areas, the most important being the SWIFT message-text standards. These enable banks throughout the world to communicate via a common language. Because this language is computer readable, member banks can automate both the handling of transactions and their account re-

conciliation. The original SWIFT system (still in service), called SWIFT I, is based on centralised network architecture and uses a "store and forward" approach. However, as the SWIFT I system bears the end of its useful life and the limit of its volume capacity, the system, SWIFT II, will progressively take over.

SWIFT II is based on a decentralised network architecture and will use a "transaction processing" approach, enabling member and user banks to incorporate a variety of processing application functions for national or regional services, provide greater flexibility in banks' processing operations and substantially increase overall system capacity throughout a "modular expansion" approach.

Cutover date for banks in Europe and America is June 2, next year to be followed in 1987 by banks in the Far East and in 1988 by banks in Australasia and Latin America. During the conversion period from SWIFT I to SWIFT II, all SWIFT services will be available to users equipped with SWIFT II terminals.

A compatibility period will be provided so that users can prepare themselves and test the SWIFT II terminals. For that period SWIFT I equipment will be able to connect to the SWIFT II system.

SWIFT I and SWIFT II services will co-exist during the changeover, although some

operational limitations will be imposed on the SWIFT I terminals.

To complement the switch from SWIFT I to SWIFT II, SWIFT has launched a range of user terminals—the ST400 series (the existing ST200 and ST500 will be provided with a SWIFT II interface). ST400 will act as a SWIFT II interface for medium to large volume banks which require not only message transmission facilities, but also processing power for banking application packages.

The terminals will be capable of transmitting and receiving thousands of messages on the SWIFT network as well as other networks, such as the major clearing systems, CHIPS, CHAPS and Fedwire.

Over the past few years, two important policy issues concerning SWIFT have emerged: firstly, should member banks and financial institutions be allowed to join SWIFT and should direct interfaces be allowed between SWIFT and third party networks such as GEISCO and ADP.

At SWIFT's annual conference last September, neither of these issues was discussed in any detail, and it seems increasingly unlikely that non-banks will ever be allowed to join. The general consensus at SWIFT seems to be that its member banks should use the network as a competitive tool against institutions which are moving into traditional banking areas with market deregulation.

SWIFT: traffic volumes

Average daily traffic volumes	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985 (estimate)
	121,000	156,000	218,000	255,000	346,000	450,000	566,000	650,000	—	—	—

Cumulative traffic volumes (m)	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985 (estimate)
	24.7	53.2	106.3	169.1	248.6	400.1	529.9	680.0	—	—	—

Revenues (in BFFs bn)	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985 (estimate)
	1,431	1,776	1,753	2,212	2,823	3,966	—	—	—	—	—

On the second issue, SWIFT views other networks (including those operated by its member banks) as rivals, and is therefore unlikely to assist them in any way, by offering a direct interface.

Indeed, these alternative networks have gradually eroded SWIFT's position as the bank's primary telecommunications

SWIFT: message flow

Figures to mid-year, 1985

	Outgoing messages	Incoming messages
Area	92,266,000	57,204,000
Europe	24,426,000	25,585,000
North America	1,418,000	1,427,000
South America	9,201,000	8,677,000

The growth of SWIFT

Membership figures

Year	Member-banks	Member countries	"Live" countries
1977	519	21	15
1978	558	24	16
1979	683	29	17
1980	758	35	21
1981	900	39	26
1982	1,017	44	32
1983	1,063	53	37
1984	1,138	54	40
1985 (mid-year)	1,257	54	40

network; more and more, the large international banks are using their own networks to communicate with their branches, by sending messages in SWIFT format but by-passing the SWIFT network.

It seems therefore, that SWIFT's role is slowly changing and that in the future, the network will carry messages on

behalf of the medium-sized and smaller banks rather than the giants which will increasingly rely upon their own networks, in which they have invested vast sums of money. Furthermore, to make up for the loss of the big bank traffic, it is expected that SWIFT will begin to actively market its other terminal-based services such as cash management.

Electronic link from office to bank

Banking systems

ALAN CANE

THERE was no real alternative when the banks were installing their first generation back office accounting systems. There were no off-the-shelf banking systems and they had to assemble their own teams of computer specialists to write the programs they felt reflected the unique nature of their own operations.

Now all that has changed. There are a large number of programs packages available and the rate of change in the financial business has concentrated minds wonderfully.

"We are being perhaps more pragmatic than we have in the past," says Mr G. M. Wood, deputy head of corporate cash management at Barclays Bank, which used to take pride in carrying out all its own development work. "We learned that some of the things we do are not as unique as we had thought."

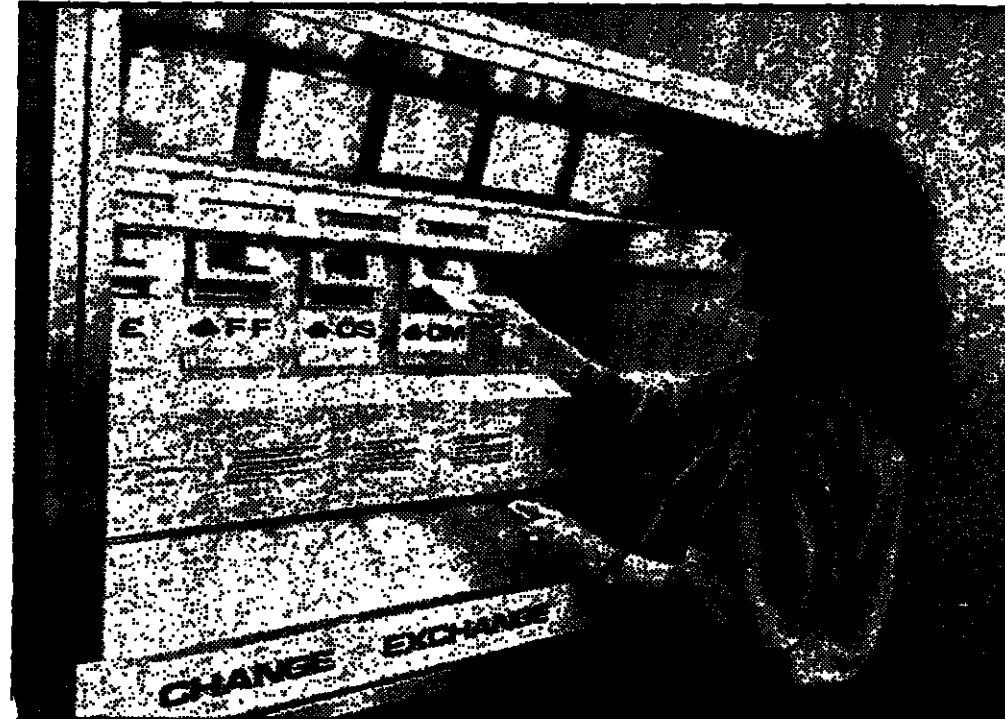
Electronic corporate cash management, providing the corporate bank customer with an electronic link between his office and his bank, represents one of the best examples of the build-or-buy debate.

Barclays, for example, after experimenting with a bespoke system decided some years ago to take a package — Banklink — from Chemical Bank.

The package extracts information from the bank's files and sends it to a third party, Geisco, the information services arm of General Electric of the U.S. This operates a worldwide data communications network, Mark III, which the customer can dial-up for details of accounts, balances and so on.

The preferred terminal for such a service these days is the IBM PC and machines which operate in exactly the same way as the PC ("onesies").

Barclays offers an advanced "spreadsheet" package on its workstation, the integrated program Symphony from Lotus Development Corporation.



Currency exchange dispenser in Zurich, Switzerland, claimed to be the first of its kind

Symphony combines a spreadsheet, database handler, word processor, graphics tool and more product and mould their operations to suit its idiosyncrasies rather than the other way about.

Barclays took the package from Lotus but then built on top of it "macros" special computer programs which allow the computer to carry out a series of complex instructions at the touch of a single key. "The macros," Mr Wood says, "give our workstation and Symphony a flavour which is uniquely Barclays. Without that it is hard to differentiate one bank's product from another."

Lack of uniqueness, of special flavour, is the key point which makes banks and other financial institutions jib at the thought of using packages. They are generic pieces of software whose

cost can be spread over many customers as long as all those customers are ready to take the same product and mould their operations to suit its idiosyncrasies rather than the other way about.

Worldwide

The best example is probably Midas from BIS, a comparatively simple foreign exchange package when it started life but which now provides the dealer with real-time access to external databases and in-house information systems for position keeping, limit information, modelling and so on.

Chase Manhattan took a licence for Midas in its early days and installed it worldwide. Chase Midas is now quite different from the BIS product. Once there was really only

Midas, Arbat and Kapit to choose from. Now systems from Nixdorf, Hogan Systems, Amecomp, CAP Financial, Allmand and Informatic Forum to mention only a few are available for the world's bankers to choose between.

But speed into the market place has become as important as differentiation these days which is why City of London stockbrokers are looking increasingly at packages rather than bespoke systems as the date of the "Big Bang" in London's financial services market draws closer.

Chase Manhattan Bank, as it showed in its Midas development, has long had a pragmatic approach to systems building. Mark Fleischer, vice president in its electronic banking unit, says it is essentially building its new system but looking out for

Bespoke


Mr Alan Benjamin, CAP's director of communications, says that the banks are building their own general systems. There is, for example, a new cycle of branch accounting automation and the banks are building these systems themselves.

An example is the 640s branch network Barclays is presently installing. Work will be contracted to IBM, to British Telecom and to Northern Telecom but essentially the work will be a bespoke job. On the other hand, a bank installing a foreign exchange dealing room is likely to buy it off the shelf from a specialist.

One good example of the way packages are being made to work together is the automated teller machine networks being set up by banks and building societies.

Networking software from the U.S. companies ACI, SDM, Qualstar is all being used; but all the ATMs in the various consortia are expected to be able to communicate with their respective card issuers.

To all intents and purposes, it seems that "build or buy" is no longer a debate; pragmatism is the watchword and the need to get into the market quickly the driving force.



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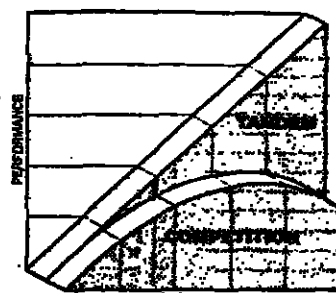
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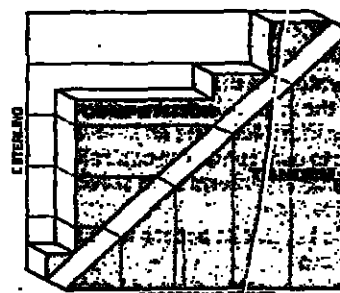
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A system which can go to work improving your business—without destroying your investment in current computer technology.

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For further information and a copy of our Annual Report, please contact Michael Lambert, Tandem Computers Limited, Peel House, 32-34 Church Road, Northolt, Middlesex UB8 3AB. Tel: 01-841 7381. Telex: 933333. Other offices in the City, West End, High Wycombe, Birmingham, Rochdale and Glasgow.

Well, it would still be in New York. But, we venture to suggest it might not be quite the financial power it is today.

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But the fact remains that a significant part of one of the world's most complex international business communities runs on Tandem computer systems.

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A system which has taken Tandem from scratch to \$530 million annual turnover—and put us into FORTUNE magazine's top 500 U.S. companies.

WHERE WOULD FORTUNE 500 BE WITHOUT TANDEM COMPUTERS?

FORTUNE 500
349

Just ten years after we started, Tandem joined 150 of our customers in FORTUNE magazine's top 500 U.S. companies.

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Virtually every large company in the world uses a conventional mainframe computer system to run its business.

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Like the fact that you can't always have all the information you want, when you want it.

When it's working to capacity, you have to "queue." And, when you want to expand that capacity, more often than not you have to replace the system with a bigger one.

Which often means stopping, retraining staff, rewriting programs—and writing off your initial investment. If you need a "fail-safe" computer—one that can continue to function even if there's a breakdown in the system—conventional mainframes can handle it. You just buy two identical systems (at double the cost) and one sits idle waiting for the other to break down.

A neat solution if you happen to make the computers. Not exactly good economics for you.

Like it or lump it, these are the "rules" of conventional computers. Tandem breaks them all.

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Computers in Banking and Finance 11

Rapid power under pressure

Back office systems

BORN SEDACCA

THE INTERNATIONAL banking, foreign exchange and money markets have seen so much activity in the past as they have in the last year or so, fuelled mainly by the U.S. dollar's roller-coaster movements.

As the City of London braces itself for "Big Bang"—the general widening of the whole financial market—it is inconceivable that the sheer number of transactions could have taken place without the use of computers.

Dealers at the sharp end of the markets have to make rapid decisions based on numerous calculations derived from a combination of external information services and their own internal positions, and this increasingly requires the use of powerful computers of a kind which can rapidly display calculation results on a screen.

However, once a deal is struck, the paperwork, or more specifically a trail of transactions, still have to be completed and they require another type of computer altogether. In other words, back office systems are more oriented towards processing transactions which are less time-critical.

International banking, for example, is a specialised business, characterised by a relatively small number of complex, high-value transactions. The average international banking operation does not require mainframe computers of the type which provide the lifeblood to the retail banks with their huge transaction volumes.

The Industrial Bank of Japan's UK merchant banking subsidiary, IBJ International, raises finance through the Euro-markets and the London office deals on its behalf, managing its dollar and yen bond issues.

In September last year, it installed a Stratus XA600 fault-tolerant minicomputer worth £250,000 for its dealing room system which will support 90 telecommunications lines to its 30 dealers, or three lines per dealer, one of which will support an IBM Personal Computer, and the other two for external information services.

IBJ International has also been running a Nixdorf 8870 back office system for some years now under Holland Automation's Nixdorf package.

Mr Jeremy Rees, associate director of IBJ International, says: "We have virtually doubled the size of the system or so, and moved up to the top of the league in Eurobond dealings. The Nixdorf was getting

too small for our workload, so we are transferring our Eurobond settlements onto the Stratus.

"We started developing a front-end system for dealers, traders and salesmen on IBM Personal Computers with communications to the Nixdorf for back office accounting."

The use of digitiser tablets allows numerous functions to be selected rapidly by the dealers, something which would take much longer if they had to key in commands conventionally through the standard PC keyboard. The software for the tablets has been written by Holland Automation and is based on Logica's Rapport database management system.

With over 400 banks and licensed deposit takers operating in the City of London alone, international banking is a lucrative market for hardware and software suppliers. As in most lucrative markets, one company usually tends to dominate with a couple of competitors in hot pursuit.

Back in February, BIS Software won its 400th order for its best-selling Midas international banking system from BBL Australia, through an associate Australian company, Johnston Brown and Associates. Mr Tom Urban, deputy chairman of BBL Australia, says: "It was important that as an Australian subsidiary of a Belgian bank, Banque Bruxelles Lambert, we could modify such factors as base currency, industry codes and reporting formats."

Another bank found the yield calculations for a Eurobond dealing support system were taking too long on an IBM

System 38-based back office system which was written in IBM's RPG III programming language. BIS decided on horses for courses, and wrote a package called Bond Aid, supplied on a Perkin Elmer minicomputer.

Mr Stanley Smith, director of BIS software, says: "We are not actually moving away from IBM. When we embarked on the Bond Aid project, we needed small cheap processors with a number of fast screens."

"The Bond Aid dealer support terminal basically provides a high-speed modelling system for Eurobond calculations. IBM did not have the right system at the right price at the time."

Marketing

Another back office international banking package, IDS, was originally developed by IDS for the London branch of the Italian International Bank. IDS installed 13 IDS systems: 10 in London, one in New York, one in Stockholm and one in Dublin. After a year of marketing by IDS, the IIB took over this again and there are now 25 users for it.

One serious contender to challenge BIS's Midas package was a package called Kapit, originally developed by Kapit Associates in New Zealand, but marketed for some time by Hoskyns before recently returning under the control of Kapit's Windsor-based marketing arm. The company claims to have some 300 Kapit sites in 50 countries.

Genex UK offers a number of software products for international banking and foreign exchange operations. In the cash management area it offers facilities such as balance report-

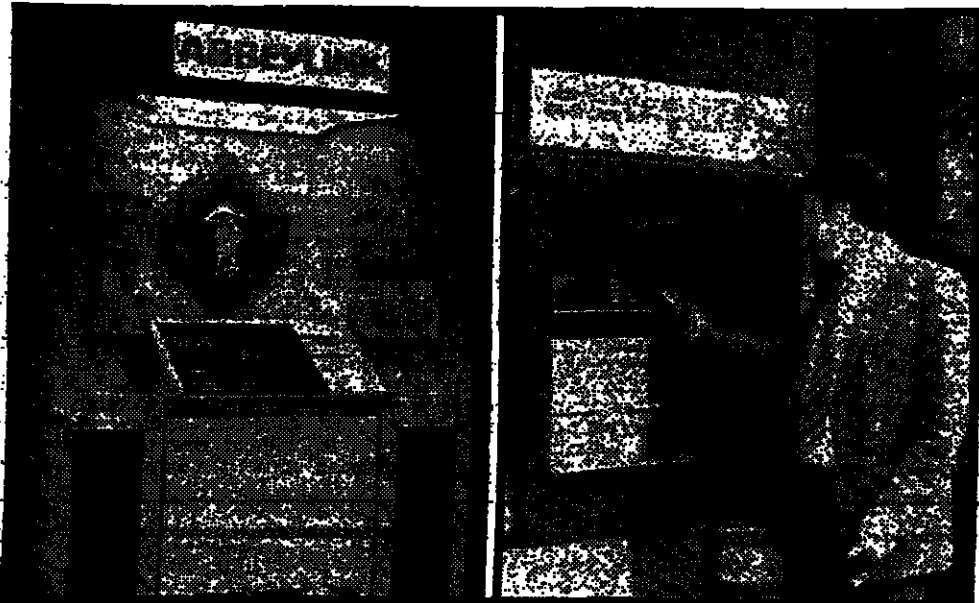
ing from banks to corporate customers, funds transfer which allows corporations to initiate payment instructions electronically for multiple delivery to banks, and a Corporate Treasurer's workstation called MicroTCS.

Also offered is an IBM PC front-end, Global, which is a system with sophisticated facilities such as the passing on of a bank's issued limits to its next dealing room on the telephone. The company is also developing touch pads with graphics symbols for main functions available on its PC-based systems.

Mr Otto Heger, a director of the Dresdner Bank (established in Dresden in 1872, but now located in Frankfurt/Main), says: "Up until now, it has only been possible to allocate predetermined portions of the overall limit to the various offices."

"Now we can display the overall limit and permit each dealing room to make use of it until the resources are exhausted. This eliminates the shortcomings of manual systems which prohibited one office from doing business with a certain party because its allocated limit was exhausted when another office may have still had open resources."

Another computing services and information network operator, Tymshare, offers a bureau-based service called International Banking Information Systems which provides information on such things as precious metals and financial futures from Tymshare's foreign exchange, money markets, letters of credit and Eurobonds systems.



Britain's building societies like the Abbey National and Halifax, the two biggest, are moving strongly into automated teller machines to provide more convenient access to accounts

Rivals battle over cash dispensers

Building societies

MARGARET HUGHES

HAVING SCORED one first with The Nottingham's scheme, building societies have just scored another with the Anglia's cashless shopping (EFTPOS) scheme.

Just a week ago Anglia went live with its Paypoint scheme, which it has developed in conjunction with ICL, at three stores in its home town of Northampton — British Home Stores, C & A and Beatties, the Midlands department store. Next week the scheme will be launched officially and over the next six to nine months will be extended to include 100 retailers and petrol stations with nearly 800 counter-top terminals in the Northampton region.

Paypoint has been developed in conjunction with ICL which is sharing equally in the £1m initial costs. Retailers will pay a fee for participating in this first cashless shopping scheme, but the fees have been pitched to undercut the charges imposed on retailers by both banks and credit card com-

panies. The maximum charge will be 1.5 per cent of the transaction value and lower for outlets such as supermarkets which operate on fine margins.

British Telecom has yet to co-operate in the project despite its key potential role in cashless shopping. Major retailers, whose turnover and transaction values justify an outlay of £800 a year, have leased a telephone line for Paypoint, but smaller retailers are having to use the Dial Up scheme whereby they pay the minimum local call charge of 4.7 pence, increasing the cost of operation.

Initially, Anglia's cashless shopping will be limited to the Northampton area and to its own cardholders, but ultimately the aim is to extend Paypoint both geographically, and to other card issuers such as credit card companies, banks and retail stores and other building societies.

Participation by other building societies is a likely development, given the Anglia's founder role in MATRIX, the building societies' own shared network of cash dispensers or automated teller machines (ATMs). Seven building societies now participate in MATRIX, though their ATM networks are on varying stages of development.

The most recent new member

is Bristol & West joining the Anglia, the Alliance and Leicester, Leeds Permanent, National & Provincial, Bradford & Bingley, and the Woodwich. At present, the Anglia, which has already installed 10 cash dispensers, with another 30 planned by the end of November, Leeds Permanent, with 20, rises to 50 by the end of the year, and the Woodwich which introduced its first 10 ATMs earlier this month and will extend this to 30 by the end of November, are the furthest advanced of the MATRIX members.

The dilemma facing building societies, and one which is particularly acute for proposed merger partners, is which ATM network to join. While seven building societies have established MATRIX, other societies, such as the Nationwide, once a MATRIX member, Abbey National, and 13 other smaller societies, which have grouped together as Funds Transfer Sharing, are members of LINK. This is a quite separate 21-member-strong, shared ATM network which includes other financial institutions such as National Express, Citibank, the Co-operative Bank and National Girobank.

Abbey National had planned to be the first member of LINK to have a cash dispenser in operation. But the introduction of its Abbeylink network, announced in February with the launch set for May, has been held up by the intervention of the Chief Registrar of Friendly Societies. He would not give the go-ahead for the system until Abbey National's ATM network was linked directly to its mainframe computer.

Initially, the society had planned to introduce an off-line system, upgrading it later to real time. The Chief Registrar objected to this because there was a potential for account holders to overdraw on their accounts, a phenomenon which is prohibited under present building society legislation.

The chief registrar also expressed concern over Abbey National's participation in shared schemes with other financial institutions, which he had earlier pointed out could contravene existing legislation. In his view the situation can only be clarified by the lengthy procedure of a court ruling. As a result Abbey National

has established a separate company to own the machines which will be leased back to the society. In much the same way, Abbey National and other societies have established separate housing associations to undertake house building.

Meeting the chief registrar's requirements has meant that the launch of the Abbeylink system has been delayed until November, but it is still hoped to have 50 in operation by the end of the year.

The Nationwide, which plans to introduce its first cash dispenser in November, has had to overcome similar obstacles. But a greater problem is its proposed merger with the Woodwich. One of the major hurdles which the two societies have to overcome is if the merger is to go ahead is both the incompatibility of their main frame computers, and the separate routes which they have taken on cash dispensers. A decision will have to be taken on whether the new society, Woodwich Nationwide, is a member of MATRIX or LINK. Initially it may well remain a member of both. One of the difficulties in making the choice is that whilst Link may have a broader spread of members the MATRIX network is both further ahead and so far easier to operate, not least because its members have a greater number of similar needs.

Ultimately, the consensus is that the two rival systems will merge, joining forces with banks and credit card companies. But there will be a great deal of angst and professional pride to be overcome before that day arrives. It is significant that the world's largest building society, the Halifax, is not a member of either.

Its ATM network is far the furthest advanced with 351 cash dispensers in operation. Its ATM service is also more sophisticated in that its Card Cash account is a two tier account which pays a high rate of interest on deposits of over £2,000. With more than 800,000 Card Cash account holders under its belt, and the claim that 92 per cent of its members now have a cash dispenser within easy travelling distance, it can afford to wait until the two rival systems—after which it will, in all probability, become a senior member of whatever national network emerges.

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Computers in Banking and Finance 12

City unclear on Big Bang

The London Stock Exchange
ELIZABETH SAWTON

WITH SCARCELY 12 months to go before Big Bang transforms trading activity on the London Stock Exchange (LSE), both by the abolition of fixed commissions on securities and the move to dual capacity (where a firm can act as both principal and agent), the City seems to be far from clear on several key issues: namely, what technology should be installed to execute automated trading, who should provide it and who should be allowed to trade on the Exchange.

The issues are closely tied and reflect the underlying reluctance of the traditional City institutions to relax their close control on business; the Stock Exchange wants to maintain control of both the information and the trading systems used after Big Bang, while at the same time acknowledging the increasing interactivity and expansion of markets globally, and the associated pressure to relinquish some of this control.

Likewise, with the question of membership of the Exchange, the Council is still undecided on criteria for joining, although it is "committed to allowing outside firms to join." As yet undetermined is the price of entry and the type of membership on offer.

Although the Exchange has its automated quotation system (SEAQ) almost ready, the actual trading of shares will initially take place with the traditional paper confirmation slips and telephones.

Quotes

Original plans to build an in-house system, Mantle, which was to be introduced about a year after SEAQ, is still under discussion. An extension of SEAQ will allow for the trading of small order executions, mostly on behalf of private investors, but a system for the automation of the big block trading which is the core of the Exchange's activity, have yet to be decided.

SEAQ, which will be transmitted to all members on Stock Exchange terminals, will display quotes of all market makers in order of price,

details of previous trades, including price, size and time of deal, high and low quote for the day, accumulated number and value of shares traded on the day, plus company news and important announcements. It will be used as a means of matching up different market makers and brokers buy and sell bids—a kind of electronic Exchange and Mart," says one broker.

Plans for automated trading after Big Bang allow for a broker to select the best quote from his SEAQ pages (and the obligation to buy at best execution still holds), and then go in and buy or sell, via his terminal.

Confirmation of trades will be carried out by the Exchange computer and written confirmation provided. This puts a heavy burden on the technology; it must be fast, efficient and capable of handling large volumes. Moreover, it must be operational much sooner than originally anticipated—as soon after Big Bang as possible to meet the growing demands of the large, technologically advanced firms which are eager to compete in the global marketplace.

Negotiations

It is no secret that Reuters and the U.S. trading system, Instinet, to which Reuters holds the overseas marketing rights, are ready in the wings to provide this automated trading service and are currently involved in a protracted series of negotiations with the Stock Exchange.

Instinet, which is used by about 300 broker/dealers and institutions in the U.S. and has a daily volume of five million traded shares, has the big advantage of a proven track record in running automated trading on NASDAQ (National Association of Securities Dealers Automated Quotations System).

Instinet chairman, Mr. Bill Lupien has been vocal in his criticism of the Stock Exchange's determination to build its own trading system, and he is not alone. One London broker says that "the Stock Exchange should confine itself to the regulatory function and leave the technical operations to a commercial organization that really knows what it is doing."

However, as a Stock Exchange spokesman countered: "Instinet

is a system run by someone else; that makes the Exchange second in command."

The best that can be said at this stage is that all three parties are talking. Reuters are due this autumn to introduce Instinet into Europe for North American trading only, to begin with, including UK stocks with U.S. listings. This, however, will also set them up conveniently to extend facilities to London-listed stocks on the LSE.

Meanwhile, the Stock Exchange Council has announced rule changes that open up trading for London's brokers in advance of Big Bang. First, British member firms are to be allowed to trade in UK equities quoted on the New York stock exchange in the form of ADRs (American Depositary Receipts), and in response to this the New York Exchange is opening half an hour earlier to allow more time for trading with London.

This is an adroit move to allow UK traders to compete with their American counterparts; bear in mind that some of the most important UK companies are traded heavily on the U.S. market—ICI, for example, has more than 60 per cent of its share traded on U.S. markets.

The second rule change allows outsiders to own 100 per cent of a UK Stock Exchange member firm from March 1 next year. If an outside company holds more than 29.9 per cent of the capital of a member firm it has to become an external member of the Stock Exchange, and prior to next October, any outside firm has to undertake not to trade in dual capacity.

Deregulated

Both these changes help to erode some of the barriers to international trading of equities. The Stock Exchange has already established a quotation system in international securities traded in London. SEAQ International, which has attracted considerable strength (Goldman Sachs, Shearson Lehman, Vickers de Costa, Bache Securities among others).

SEAQ International operates on NASDAQ lines and is a useful litmus test for the Stock Exchange to gauge how well the City will react to the more exposed system of quoting after Big Bang.

Reuters has also launched a similar service, however, and has attracted an equally impressive group of market makers. To City watchers this only accentuates the determination of the big information provider to take a large chunk of the business in trading systems in the deregulated market.

Perhaps the most pertinent observation on this flurry of preparation for Big Bang comes from a leading New York consultant, Richard Radez, who warned earlier this year: "If the emerging British securities firms do not acquire the capability to rival the computer-based securities trading systems of leading Wall Street firms, they run the risk of seeing the U.S. investment banks emerge as the major winners in the ongoing deregulation of the London financial markets."



The traded options market of the London Stock Exchange

Close watch on new technology

Union viewpoints

HELEN HAGUE

THE IMPACT of the increasing use of new technology in Britain's clearing banks is being monitored by the two trade unions which organise workers in the sector.

Between them, the Banking, Insurance and Finance Union and the non-TUC Clearing Bank Union represent in excess of two-thirds of the 250,000 staff in the clearing banks.

In the wake of the recent collapse of the fifth round of merger talks, the CBU and Bifu remain divided. However, they are united in their desire to reach new technology agreements with employers which will guarantee job security and negotiating rights.

This goal has, to date proved somewhat elusive.

Bifu—which has around 75,000 of its 156,000 membership in the clearing bank sector—last month relaunched its campaign to alert bank employees to the implications of new technology.

The relaunch comes after seven years of attempting to win new technology agree-

ments. So far, no employer has agreed to give the union negotiation rights over the introduction of new technology.

In Bifu's definition, new technology on acceptable terms means active participation in discussions leading to its implementation with benefits passed on to employees—particularly in reduced working hours.

Debate within the union takes place against a backdrop of predictions of job losses, widespread "deskilling" and the erosion of traditional promotion prospects if new technology advances without agreements acceptable to the union.

The introduction of Clearing Bank Automatic Payment Systems (CBAPS) has led to a loss of some messengers' jobs by natural wastage. Bifu argues advanced technology should be used to benefit, not displace employees.

Though the union does not have an apocalyptic vision of the imminent arrival of the cashless society the ramifications of electronic funds transfer at the point of sale (Eftpos) will be closely watched.

Eftpos could hold the key to a cashless shopping revolution. In lay terms, it means that a shopper can go into a store and

purchase goods with a plastic card.

It will link with an authorisation terminal which will check how much money is in the customer's account and debit the amount spent. All paperwork is cut out. And the fear is that jobs will go, too.

Three Eftpos pilot schemes were announced this autumn. The increasing use of automatic teller machines (ATMs) both inside and outside banks has been one of the most visible changes in banking services over the past five years.

The National Westminster Bank and Lloyds offer Saturday morning services (without cashiers). Other staff are there to offer specialist services.

Trend

The trend would appear to be moving towards the automatic bank counter, with customers keying in requests for cheque books or standing orders without them having to be processed by staff.

In the longer term, the prospect of home banking poses an evident threat to jobs. Though in its early stages, the unions are keeping a vigilant eye on developments.

Changing technology is drastically altering traditional

career promotion routes for bank employees, according to Bifu. The days when a 15-year-old school-leaver could aim to become a bank manager by 45 are now gone. The majority of management recruits are now graduates.

Barclays announced recently that new recruits would be streamed. Eighty-five per cent of new entrants will not have recourse to time off to take banking exams for career enhancement. Bifu claim this is tantamount to an admission that career development prospects are severely limited.

The union is keen to see a complete overhaul of job evaluation schemes in banks, as most were drawn up in the early 70s, before new technology gathered pace.

As banks move into new areas of business such as mortgages and insurance, the union expects its membership profile to alter. These sectors—along with conventional credit cards—are earmarked for growth. There is a belief in some quarters that staff numbers in total will continue to show a slight rise until the end of the decade.

Mr. Colin Moore, Bifu's assistant general secretary for its computer section, argues that without new technology agreements the future holds out the prospect of fewer jobs and a impoverished career development. "The fear is that people will be recruited at lower grades, basically to input and extract data from computerised systems, rather than starting the first rung of a career ladder," says Mr. Moore.

Union activists believe there is a considerable degree of complacency among members on the impact of new technology. The problem of apathy, they argue, means that staff who are questioning a new machine may be speeding their own obsolescence—or someone else's within the clearing bank network.

Hence the relaunched awareness campaign. The CBU is a confederation of the in-house unions of Barclays, National Westminster and Lloyds. It represents 98,000 bank employees and is traditionally more low profile than Bifu.

On computerisation, the union sees its major objective as the achievement of new technology procedure agreements which commit employers to consultation. The agreements should cover retraining, redeployment, job-evaluation hours and patterns of work, as well as health and safety aspects.

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INTERNATIONAL CAPITAL MARKETS

U.S. MONEY AND CREDIT

Debt debate puts trading in neutral

THE U.S. credit markets continued to coast along in neutral last week, unwilling to shift gear in any decisive manner until the debate over the debt ceiling is resolved in Washington. On Monday, trading closed down anyway for the Columbus Day holiday, but after that, rates drifted sideways in relatively light activity, falling a little after the Gross National Product figures on Thursday, but then swinging back up again on Friday.

Over the balance of this month, there appears to be no fear that the deadlock over government borrowing in Washington will make the Treasury run out of cash. Even if Congress continues to deny the government authority to increase the limits set on its ability to raise money, the Treasury has some new financing capacity in hand, thanks to a little ledgerman involving

U.S. MONEY MARKET RATES (%)				
	Last Friday	1 week ago	4 wks ago	12-month High
Fed Funds (weekly average)	8.02	8.00	7.50	10.10
Three-month Treasury bills	7.10	7.10	7.00	8.50
Six-month Treasury bills	7.30	7.30	7.20	8.50
Three-month prime CDs	7.30	7.30	7.20	8.50
New 10-year "A" Financial	N/A	11.00	11.00	11.00
New "AA" Long utility	N/A	11.00	11.00	11.00
New "AA" Long industrial	N/A	11.00	11.00	11.00

U.S. BOND PRICES AND YIELDS (%)				
	Last Friday	1 week ago	4 wks ago	12-month High
Seven-year Treasury	101 1/2	101 1/2	101 1/2	101 1/2
10-year Treasury	101 1/2	101 1/2	101 1/2	101 1/2
20-year Treasury	101 1/2	101 1/2	101 1/2	101 1/2
New 10-year "A" Financial	N/A	11.00	11.00	11.00
New "AA" Long utility	N/A	11.00	11.00	11.00
New "AA" Long industrial	N/A	11.00	11.00	11.00

Money Supply: In the week ended October 7 1985 fell by \$3.2bn to \$817.5bn.

The Federal Financing Bank (FFB) This Wednesday, \$9.2bn of new 2-year notes will be auctioned, of which \$8.1bn will go to the replacement of maturing debt, with the other \$1.1bn

to the expanding needs of the public purse. By using the FFB, where debt is covered by the full faith and credit of the government, but which does not count towards the legal debt ceiling, the authorities will

avoid a technical breach of their responsibilities. But they are well aware that the game cannot go on forever. Some \$5bn of the FFB's resources has already been used up, and after this week's offering, it will only have \$3.5bn of unused borrowing authority left.

So the log-jam in Washington clearly has to break sometime, and when it does, the credit markets will be faced with the problem of absorbing around \$50bn by the end of the year. The apprehension over this prospect was compounded last week by a jittery wait for the third quarter GNP figures.

Much of Wall Street had been vigorously rearranging its growth forecasts over the previous week or so, with the consensus moving towards a substantial upward revision of the 2.8 "flash" figure put out

earlier. In the event, the 3.3 per cent announced by the Commerce Department looked as though it had a little for everyone in it—it was up sufficiently to confound any talk of imminent recession, but not sufficiently to promote any fear of runaway growth that would pose yet another strain on borrowing. Indeed, the mild downward movement in rates on Thursday was an indication that investors saw no particular threat to the system from this pace of growth.

The M1 figures, also out on Thursday, made very little impression: the steep \$3.3bn fall was expected after the huge jump in the previous week, impaired by banking flow dislocations following Hurricane Gloria. And the economic statistics on Friday—a 1.2 per cent rise in personal consumption expenditures and an increase of

0.3 per cent in personal income—also caused little reaction, since they were broadly in line with the GNP statistics.

The more important question over M1 is whether its present longer-term rate of expansion will force the Federal Reserve Board to begin pulling on the reins. Over the last 12 months, M1 has risen by 10.9 per cent and in the most recent three months it has been running at an annualised rate of 14 per cent. Little wonder that

some economists argue that the Fed's next move will have to be towards a firmer policy in an attempt to ward off fears of renewed inflation.

Other economists, on the other hand, point to the subdued rate of inflation—in the third quarter it was running at 3.3 per cent—as giving the Fed plenty of scope to continue its present monetary policy. There is no sign, either, that the industrial sector is working at a rate as yet that will add

to inflationary pressures. The September capacity utilisation figures show a slight decrease to 80.2 per cent from 80.5 per cent, and on the historical evidence would need to be at least 2 percentage points higher before they began to put much strain on prices.

The balance of Wall Street forecasts seems to be broadly unchanged, policy from the Fed for the time being.

Terry Dodsworth

UK GILTS

Lawson's speech dispels some of the unease among brokers over his new strategy

IN THE gilt-edged market at least Mr Nigel Lawson's speech at the Mansion House on Thursday clearly had the desired effect.

The Chancellor's renunciation of this year's official target range for sterling M3 and the decision to abandon "overfunding" triggered gains of up to 4 points for long-dated stocks.

Within an hour of the market's opening on Friday the Bank of England had sold out of the £800m Treasury 10 per cent 2001 issued by tender a day earlier. By 3.30 pm it felt emboldened to issue a further £800m of stock.

As yields for 25-year gilts fell to 10.1 per cent just fractionally above the best of the year, some brokers began to talk of another determined assault on the 10 per cent yield barrier.

The speech, of course, had minuses as well as pluses. If the Chancellor is unwilling to nudge up longer-term yields when he needs to tighten monetary policy, the strain will be taken by short-term interest rates.

Here Mr Lawson stressed that official policy was at present "cautious," but that he would not hesitate to push up rates if necessary.

Short-dated gilts responded by moving in the opposite direc-

tion to the longs, although losses were limited to 4 points. At the same time the market's knee-jerk reaction in pushing up prices for longer maturities did not entirely dispel the unease of some brokers over the Chancellor's new strategy.

But to take the positive points first, despite the Bank of England's rather heavy-handed issue of extra stock on Friday, the decision to dump sterling M3 should considerably ease prospective funding pressures.

"The objective of funding policy is to fund the PSBR (public sector borrowing requirement) over the year as a whole: no more no less. And that we are doing," Mr Lawson said.

In a section of his speech slightly earlier, he made it clear that the definition of funding included sales of debt both to the non-bank private sector in Britain and to overseas investors. The only sales excluded are those to the UK banking system.

None of this is to suggest that the Government Broker can simply rest on his laurels. The exact figures are almost impossible to untangle, but the PSBR has probably been underfunded so far this year, particularly as the Treasury's £7bn target looks increasingly optimistic.

The second source of unease for some brokers is the Treasury's £7bn target looks increasingly optimistic.

That said, broker W Greenwell estimates that even with a £1bn overshoot in the PSBR, the net funding requirement, including national savings, over the next five months may total only £4bn.

If the supply outlook looks favourable, the brokers' economists dismissed by Mr Lawson as "young Turks" are not so unambiguous about the whole package.

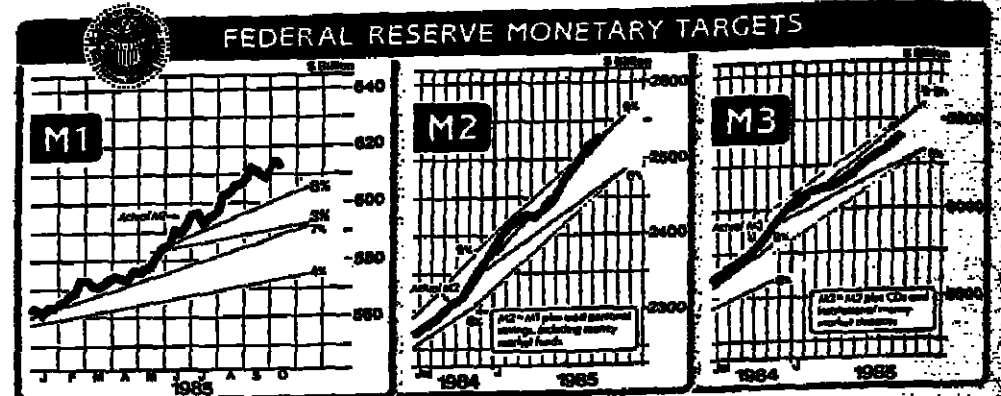
The first doubt concerns the extent to which the Treasury's tough approach to short-term rates can be taken at face value. Last month's Group of Five agreement to seek a lower dollar included provision for changes in the cross rates between non-dollar currencies. An implicit element was a fall in the value of sterling against the D-Mark.

That point has so far worked and Britain has secured a sizeable devaluation against the West German currency within the framework of overall stability for the pound.

That leads economists such as Mr Richard Jeffrey of broker Hoare Govett to believe that if sterling were to rise strongly against the D-Mark, the Treasury would seek a cut in short-term rates.

The second source of unease for some brokers is the Treasury's £7bn target looks increasingly optimistic.

Philip Stevens



FT/AIBD INTERNATIONAL BOND SERVICE

U.S. DOLLAR STRAIGHTS				Chg. on			
Issued	Price	Yield	Chg. on	Issued	Price	Yield	Chg. on
AHFC 11 1/2 84	100	100 1/2	10.32	AHFC 11 1/2 84	100	100 1/2	10.32
AHFC 12 1/2 84	100	100 1/2	10.32	AHFC 12 1/2 84	100	100 1/2	10.32
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AHFC 118 1/2 84	100	100 1/2	10.32	AHFC 118 1/2 84	100	100 1/2	10.32
AHFC 119 1/2 84	100	100 1/2	10.32	AHFC 119 1/2 84	100	100 1/2	10.32
AHFC 120 1/2 84	100	100 1/2	10.32	AHFC 120 1/2 84	100	100 1/2	10.32
AHFC 121 1/2 84	100	100 1/2	10.32	AHFC 121 1/2 84	100	100 1/2	10.32
AHFC 122 1/2 84	100	100 1/2	10.32	AHFC 122 1/2 84	100	100 1/2	10.32
AHFC 123 1/2 84	100	100 1/2	10.32	AHFC 123 1/2 84	100	100 1/2	10.32
AHFC 124 1/2 84	100	100 1/2	10.32	AHFC 124 1/2 84	100	100 1/2	10.32
AHFC 125 1/2 84	100	100 1/2	10.32	AHFC 125 1/2 84	100	100 1/2	10.32
AHFC 126 1/2 84	100	100 1/2	10.32	AHFC 126 1/2 84	100	100 1/2	10.32
AHFC 127 1/2 84	100	100 1/2	10.32	AHFC 127 1/2 84	100	100 1/2	10.32
AHFC 128 1/2 84	100	100 1/2	10.32	AHFC 128 1/2 84	100	100 1/2	10.32
AHFC 129 1/2 84	100	100 1/2	10.32	AHFC 129 1/2 84	100	100 1/2	10.32
AHFC 130 1/2 84	100	100 1/2	10.32	AHFC 130 1/2 84	100	100 1/2	10.32
AHFC 131 1/2 84	100	100 1/2	10.32	AHFC 131 1/2 84	100	100 1/2	10.32
AHFC 132 1/2 84	100	100 1/2	10.32	AHFC 132 1/2 84	100	100 1/2	10.32
AHFC 133 1/2 84	100	100 1/2	10.32	AHFC 133 1/2 84	100	100 1/2	10.32
AHFC 134 1/2 84	100	100 1/2	10.32	AHFC 134 1/2 84	100	100 1/2	10.32
AHFC 135 1/2 84	100	100 1/2	10.32	AHFC 135 1/2 8			

INTERNATIONAL COMPANIES AND MARKETS

FRENCH BOND MARKET

Little room remains for interest rate cut

WITH THE French inflation rate edging down to about 5 per cent, yields on state bonds on the Paris capital market, which were falling gently to around 10.7 per cent on Friday, are looking distinctly generous to investors.

French Treasury officials point out that real interest rates in France are now about two points above those in West Germany. Considering the firmness of the French franc within the European Monetary System and with foreign exchange reserves still climbing, the stage might appear to be set for a sharp decline in long-term French interest rates over the next few months.

Some room remains for downward movement—but not much. A combination of technical and economic circumstances—as well as political uncertainties which will loom larger with the approach of general elections next March—may mean that Paris interest rates are close to the bottom of the present cycle.

Although the bond market has been spared any flood of

new issues in the last few weeks, it has yet to weather the state's last quarter borrowing programme. The government has raised FF 87.5bn so far this year through bond financing. The Treasury is preparing the market for a further FF 30bn before the rest of the year, which will help push overall new issue volume for 1985 to above FF 250bn, comfortably above last year's record.

A further factor unsettling the markets is the tide of financial deregulation measures initiated by M. Pierre Bérégovoy, Finance Minister. Some bankers say uncertainty over the effect of these measures has added a "risk premium" to long-term yields.

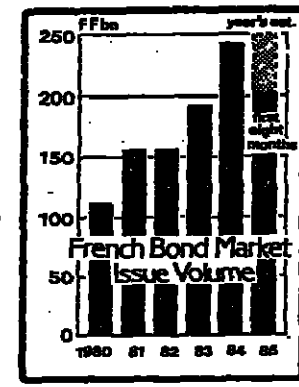
Following the opening this year of a certificate of deposit market, the Ministry is planning shortly to allow company treasurers to raise funds through a commercial paper market. It is also proposing to open up considerably investment in short-term Treasury Bonds. If fully put into effect these initiatives could drain off

large sums previously invested in the bond market.

The Treasury has tried to calm bond dealers' fears by announcing that the commercial paper market will be limited to about FF 10bn in 1986. This should lower the risk of withdrawals from the bond market of short-term liquidity managed by burgeoning unit trusts and mutual funds, which have grown greatly in size over the last few years. However, the bond market's reliance on essentially short-term investment, much of it channelled from corporate treasurers with cash surpluses, places it in a fragile state which one senior Paris banker last week described as "a house of cards".

The central question hanging over the capital market is how far interest rates can come down in France in line with disinflation without threatening the equilibrium of the banking system?

The Bank of France on Thursday signalled the likelihood of an imminent cut in bank base lending rates by reducing to 9½ per cent from 9½ per cent, its



money market intervention rates. Paris money market rates have now fallen a full percentage point over the last three months to their lowest since July 1979. Banks base rates, held at 10.85 per cent since July, have fallen only 1.4 percentage points since January 1985, compared with a fall in inflation of about 4 points since then. A principal reason for the slowness of the drop is the peculiar

earnings structure of France's big commercial banks with large retail networks, which rely heavily on interest-free deposits for their profits.

With margins already under pressure this year as a result of slack credit demand, these banks' high overheads costs place serious question marks over profitability as soon as base rates come down to around the 10.5 per cent area. Even though M. Bérégovoy last week was renewing his customary calls for banks to cut base rates soon, the Treasury is fully aware of the risks for bank profitability in pushing the descent too fast.

The next cut in base rates, perhaps this week, is therefore likely to be only token—possibly around 0.25 or 0.3 per cent. Some seasoned, if cynical, bankers last week were forecasting that more important cuts to around the 10 per cent level will be delayed for reasons of electoral stage management until early in the new year.

David Marsh

NEW INTERNATIONAL BOND ISSUES

Borrowers	Amount m.	Maturity	Av. life years	Coupon %	Price	Book Runner	Offer yield %
U.S. DOLLARS							
Tokyo Corp. 15	70	1990	5	6½	100½	Wanamaker	5.505
Bank of America 5	50	2000	15	(a)	100	Wood Gundy	-
Deutsche Bank 5	200	1995	10	(b)	100.1	Morgan Guaranty	-
Deutsche Bank 5	125	1995	10	11½	101½	Bankers Trust Int.	11.307
Deutsche Bank 5	100	2000	15	(2½)	100	Dai-ichi Kangyo Int.	-
Korea Exchange Bank 5	100	2000	15	½	100	Morgan Guaranty	-
First Motor Credit 5	150	1991	6	10½	100½	Goldman Sachs	10.442
San Capital Corp. 5	100	1990	5	10	99½	CSFB	10.132
Yuhong Int. (4) 15	30	1993	8	½	100	Lloyds Bank Int.	-
Yuhong Int. (4) 15	100	1995	10	9½	100	Salomon Brothers	-
Yuhong Int. (4) 15	250	1992	7	10½	99½	Morgan Stanley	10.328
Yuhong Int. (4) 15	100	1992	7	10½	100	SBIC	10.750
Yuhong Int. (4) 15	50	2000	15	(2½)	100	Wills & Towsers (Eur)	-
Yuhong Int. (4) 15	250	1992	7	10½	100	SBIC	10.250
Yuhong Int. (4) 15	250	1995	10	10½	100½	Merrill Lynch	10.542
Yuhong Int. (4) 15	50	1998	5	(6½)	100	Barclays Mer. Bank	-
Yuhong Int. (4) 15	100	1995	10	10½	99.334	Wills & Towsers	10.561
Yuhong Int. (4) 15	100	1995	10	10	100	Morgan Stanley	10.080
Yuhong Int. (4) 15	100	1995	10	11	100½	Morgan Stanley	10.915
Yuhong Int. (4) 15	100	2000	15	11	102	Morgan Stanley	10.726
Yuhong Int. (4) 15	100	1992	7	(6)	(100)	WBS (Secs)	-
CANADIAN DOLLARS							
Amco Int'l Finance 5	70	1990	5	10½	101½	Wills & Towsers (Eur)	10.351
Amco Int'l Finance 5	50	1990	5	10½	99½	Shearson Lehman Bros.	10.316
Amco Int'l Finance 5	50	1995	10	11	100	Shearson Lehman Bros.	11.200
NEW ZEALAND DOLLARS							
Woolworths Int. 5	50	1990	5	17½	100½	Merrill Lynch	17.218
D-MARKS							
Investmentbank 5	50	1990	5	6½	100	Bayrische Vereinsbank	6.625
Investmentbank 5	125	1993	8	6½	99½	West-LB	6.975
Investmentbank 5	100	1992	7	7½	100½	BNF-Bank	7.203
SWISS FRANCES							
GTE Finance Corp. 10	150	2000	-	7	100	Société	7.800
OP Corp. 10	50	1993	-	2½	100	Credit Suisse	2.875
OP Corp. 10	100	1991	-	2	100	UBS	2.800
OP Corp. 10	150	2000	-	5½	99½	UBS	5.400
OP Corp. 10	20	1990	-	5½	99½	Credit Suisse	5.559
OP Corp. 10	50	1990	-	2½	100	Credit Suisse	2.875
OP Corp. 10	50	1990	-	5	99½	Credit Suisse	5.058
OP Corp. 10	50	1992	-	5½	99½	Credit Suisse	5.168
OP Corp. 10	100	1995	-	5½	99½	UBS	5.592
OP Corp. 10	150	2005	-	5½	99½	UBS	5.793
OP Corp. 10	10	1990	-	5½	99½	UBS	5.559
OP Corp. 10	30	1990	-	5½	99½	Bank Leu	5.559
OP Corp. 10	30	1990	-	(3)	100	Handelsbank	-
OP Corp. 10	50	1991	-	(2½)	-	UBS	-
OP Corp. 10	100	1995	-	5½	100½	Chase Man. (Swiss)	5.185
OP Corp. 10	200	2005	-	5½	99½	UBS	5.521
OP Corp. 10	100	1992	-	(6½)	(100)	Société	-
OP Corp. 10	100	1992	-	5½	100	SBIC	5.125
OP Corp. 10	110	1995	-	5½	100	Société	5.500
OP Corp. 10	217	2000	-	5½	100	SBIC	5.375
OP Corp. 10	30	1997	-	5½	99½	Swiss Dep. & Cr. Bk	5.404
OP Corp. 10	50	1992	-	5	99½	Credit Suisse	5.043
OP Corp. 10	50	1992	-	5½	99½	Credit Suisse	5.168
OP Corp. 10	100	2000	-	10½	100½	Handelsbank	5.350
OP Corp. 10	20	1990	-	5½	99½	Handelsbank	5.559
ECU							
Swisscom Corp. 5	52	1992	7	8½	100	Société Générale	8.750
Swisscom Corp. 5	100	1995	10	9	100	Société Générale	9.000
Swisscom Corp. 5	65	1998	3½	9	101	Paribas	8.625
FRENCH FRANCES							
Europacorp 5	300	1992	7	11½	100	CCF	11.125
Europacorp 5	100	1997	12	11.7	99.88	Paribas	11.719
LUXEMBOURG FRANCES							
EEC 5	100	1995	10	8½	100	Kreditbank Int.	8.875
DANISH KRONER							
Fin. Int. for Danish Ind. 5	300	1991	6	9½	100	Sparkassen SDS	9.875
BULGARIAN LEV							
FBF Mortgage Bk 5	50	1990	5	7	99½	Bk Mores & Hope	7.122
YEN							
Sanitama Ind. 5	200	1990	5	6½	101½	Daiwa Europe	6.819
Sanitama Ind. 5	150	1992	7	5½	102½	Nomura Int.	6.806
Sanitama Ind. 5	250	1995	10	8	101½	Daiwa Europe	7.834
Sanitama Ind. 5	7.50	1992	7	7.3	100	Mitsui Bank Ltd.	7.300
Sanitama Ind. 5	900	1997	12	6.4	100	Nomura Secs.	6.400

* Not yet priced. † Final terms. ** Private placement. † Floating rate note. ‡ With equity warrants. § With bond warrants. ¶ Dual currency. (a) (Gold) indexed; 11½ min. first 2 yrs. (b) Minimum; higher of 1m Libor or 6m Libor + 1/8%. (c) ½ over 6m Libor; 1/8% over 12m Libor. (d) ¼ over 1m Libor first 4 yrs; ¾ last 4 yrs. (e) Delayed cap; ¼ over 2m Libor. (f) Multiples bond. (g) ¼ over 6m Libor. (h) Registered with U.S. S.E.C. Note: Yields are calculated on ABB basis.

Japan urged to ease rules on sovereign loans

By Peter Montgomerie in Tokyo

JAPANESE banks are pressing the country's Ministry of Finance to relax regulations on lending to countries which have rescheduled debts in the wake of this month's U.S. initiative on easing the debt crisis.

In particular they are seeking elimination of the 5 per cent reserve requirement which is mandatory on such lending until the rescheduled debt is repaid, or at least a change in rules that would make the requirement tax deductible.

Under the U.S. initiative, banks worldwide have been asked to lend a further \$20bn to the main debtor countries over the next three years.

The initial response from the authorities here has been cautiously favourable. Mr Toyoko Gychen, director-general of the Ministry's International Finance Bureau, said he personally favoured making the reserve requirement tax deductible, though this should be offset by an increase in the level of the requirement itself. However, such a move is expected to meet resistance from the tax authorities.

Futures contracts flood Tokyo

BY OUR FINANCIAL STAFF

JAPAN'S new bond futures market ended its first two hours of business on Saturday with more than 70,000 contracts traded, about seven times the average daily trading foreseen by many dealers.

"Trading was slow for the beginning and nothing traded for a long time," said one dealer. But later orders were so large that the Tokyo Stock Exchange asked securities companies to tell customers to reduce orders, he added.

Contracts are deliverable in ¥100m units of ten-year government bonds of a theoretical issue assuming a 6 per cent coupon, and about 18 different

long-term bonds can be used for delivery.

The December contract was the most heavily traded, with turnover of ¥6,579bn out of a total of ¥7,067bn. It opened at ¥102.4, a yield of 5.688 per cent and closed at ¥102.02, having traded between ¥101.99 and ¥102.04.

● The Chicago Board Options Exchange plans to enter a battle, due to begin on Friday, between exchanges offering competing products based on indices of U.S. over-the-counter equities, writes Alexander Nicol.

It is to offer options on a Standard and Poor's index of

250 OTC industrial stocks. The Chicago Mercantile Exchange is introducing a futures contract based on the same index, while the Chicago Board of Trade will launch futures on the NASDAQ-100 index under licence from the National Association of Securities Dealers, which is itself trading options on its index.

All the new contracts require regulatory approval, expected on Thursday. The CBOE already trades over 300,000 options a day on an S and P index of 100 blue chip stocks, surpassing by far the volume of many rival options and futures contracts.

Dr Breitschwerdt said the company expected a "very decent" profit for the year. Analysts generally expect Daimler-Benz will raise its dividend to DM 12.50 a share for 1985 from DM 10.50 in 1984.

Dr Breitschwerdt predicted that Daimler-Benz's car output would rise to 540,000 units in 1985 from 480,000 in 1984, but said production of trucks would stagnate at about 210,000 units.

Wang optimistic after edging back to profit

By Terry Dodsworth in New York

WANG LABORATORIES, the Massachusetts-based office equipment manufacturer hit by heavy losses in its last fiscal quarter, pulled back into profit in the first quarter of its current year and said that it was "cautiously optimistic" about business prospects for 1986.

Net income for the three months to September 30 was \$7m, or 5 cents a share, against \$51.2m, or 36 cents, a year ago. Sales reached \$561m against \$554m, and the company set a quarterly record for orders received, which rose by 16 per cent to \$689m. Orders were particularly strong in the U.S., increasing by 44 per cent over the last quarter, it said.

In the final quarter last time, Wang produced a net loss of \$109m. This setback underscored the slump in the U.S. computer market and reduced income for the fiscal year, ended June, to only \$15.5m. The company said that although cost-cutting action taken in the last half of fiscal 1985 had resulted in the resumption of profitable operations, profit margins remained depressed.

This announcement appears as a matter of record only
17th October, 1985

U.S.\$75,000,000

Swiss Volksbank
Finance (Cayman Islands) Ltd.

6½ per cent. Guaranteed Notes due 1990
with "A" and "B" Warrants attached to acquire
100,000 shares of \$1.500 par value each of,
and unconditionally guaranteed by,

Swiss Volksbank
Issue Price 101 per cent.

Union Bank of Switzerland (Securities) Limited
Credit Suisse First Boston Limited
Commerzbank Aktiengesellschaft
DG BANK - Deutsche Genossenschaftsbank
Amro International Limited
Kuwait Foreign Trading Contracting & Investment Co. (S.A.K.)
Orion Royal Bank Limited

Swiss Bank Corporation International
Deutsche Bank Capital Markets Limited
Dresdner Bank Aktiengesellschaft
HBI Samuel & Co. Limited
Noumura International Limited
S. G. Warburg & Co. Ltd.

Algemene Bank Nederland N.V.
Banca del Gottardo
Bank für Gemeinwirtschaft Aktiengesellschaft
Bank Leu International Ltd
Banque Bruxelles Lambert S.A.
Banque Internationale à Luxembourg S.A.
Bayerische Landesbank Girozentrale
Berliner Handels- und Frankfurter Bank
Compagnie de Banque et d'Investissements, CBI
Generale Bank
Girozentrale und Bank der österreichischen Sparkassen Aktiengesellschaft
Handelsbank N.W. (Overseas) Limited
Kuwait International Investment Co. S.A.K.
Liechtensteinische Landesbank
Lloyds Merchant Bank Limited
Morgan Grenfell & Co. Limited
Nordfriesland-Bank Zülich
Private Bank and Trust Company
Schöller & Co. Bank Aktiengesellschaft
Schweizerische Hypotheken- und Handelsbank
Vercins- und Westbank Aktiengesellschaft

Arab Banking Corporation (ABC)
Banca della Svizzera Italiana
Bank J. Vontobel & Co. AG
Banque Générale du Luxembourg S.A.
Banque Nationale de Paris
Bayerische Vereinsbank Aktiengesellschaft
B.S.C. Capital Markets Group
Credit Commercial de France
Credit Lyonnais
Genossenschaftliche Zentralbank AG - Vienna
Hessische Landesbank - Girozentrale
Kuwait Investment Company (S.A.K.)
Lloyds Merchant Bank Limited
Niederländische Middenstandsbank nv
Paribas Capital Markets
Rothschild Bank AG
Société Générale
Westdeutsche Landesbank Girozentrale

Julius Baer International Limited
Bank in Liechtenstein Aktiengesellschaft
Bank Wegglin & Co.
Baring Brothers & Co., Ltd
Bayerische Vereinsbank Aktiengesellschaft
B.S.C. Capital Markets Group
Credit Lyonnais
Genossenschaftliche Zentralbank AG - Vienna
Hessische Landesbank - Girozentrale
Kuwait Investment Company (S.A.K.)
Lloyds Merchant Bank Limited
Merrill, Finck & Co.
Norddeutsche Landesbank Girozentrale
Pierson, Helling & Pierson N.V.
Sarasin International Securities Limited
J. Henry Schroder Wagg & Co. Limited
Verband Schweizerischer Kantonalbanken

This announcement appears as a matter of record only
16th October, 1985

U.S.\$150,000,000

European Investment Bank

10½ per cent. Notes due 1992

Issue Price 100½ per cent.

Union Bank of Switzerland (Securities) Limited

Amro International Limited
Bank Leu International Ltd
Banque Bruxelles Lambert S.A.
Crédit Lyonnais
Daiwa Europe Limited
Genossenschaftliche Zentralbank AG-Vienna
Istituto Bancario San Paolo di Torino
Istituto Italiano di Riforma
Merrill Lynch Capital Markets
The Nikko Securities Co., (Europe) Ltd.
Orion Royal Bank Limited
Société Générale
Swiss Volksbank

Banca Commerciale Italiana
Bankers Trust International Limited
Chase Manhattan Capital Markets Group
Credit Suisse First Boston Limited
Generale Bank
IBJ International Limited
Kuwait International Investment Co. S.A.K.
Morgan Stanley International
Nomura International Limited
Shearson Lehman Brothers International
Swiss Bank Corporation International Limited
S.G. Warburg & Co. Ltd.

Clayform four-point plan in bid for Owen Owen

BY MARTIN DICKSON

Clayform Properties, which is making a contested £40m takeover bid for Owen Owen, the Liverpool-based department store business, launched an attack at the weekend on what it called the group's "wonderful record of zig-zag earnings per share".

In its formal offer document to shareholders, Clayform promised a four-point plan of action to "improve" Owen Owen's trading activities. It said it would:

- Retain certain stores, pre-funding the projects with institutional investors. Where appropriate, Owen Owen stores would be retained in the new developments.
- Retain other stores substantially in their present form and use strong management to revitalise trading.
- Sell properties with no viable future.
- Integrate with Owen Owen's retail operations the Clayform subsidiary Schofield's, a Yorkshire-based department store group acquired last December.

Clayform said that in the first six months of this year, Schofield's achieved pre-tax profits of £463,000 against none in the same period of last year. Clayform, which obtained a

BOARD MEETINGS

TODAY	
Interims—Abbey Life, Barlow, Bestwood, Highland Distilleries, IBL, More O'Farrell, Western Brothers.	Ellis and Goldstein Grand Central Norcott Hotels Rush and Tompkins Usher-Walker Western Coors T.
Finals—High-Point Services, Mark- Heath Securities, Third Mile Invest- ment.	Arbuthnot Govern- ment Trust Arbuthnot Japan Co. Cresson (J.) Lynch Industries Rand Mines Corp. Smart (J.) Contrac-
FUTURE DATES	
Interims—	
Asam-Deans	Oct 23
Bentor	Oct 22
Ceter Allen	Nov 7
Clarke (Clament)	Oct 29

USM listing only six months ago, is offering one of its own shares and 200p in cash for each Owen Owen share. That is worth about 440p a share on the basis of Clayform's Friday closing price of 340p.

However, Owen Owen shares closed on Friday well above that at 480p, partly on speculation that Burton Group, the retailing group which recently acquired the Debenhams department store chain, might put in a rival bid.

Clayform said that its offer compared well with the 245p price of Owen Owen shares at the start of August, just before it bought an 11.5 per cent stake in the company.

Clayform said it considered that the trading approach taken by Owen Owen had been outdated for many years. Sales per square foot, profits per employee and returns on capital were all unacceptably low, particularly when compared with other retailing groups.

It said that "due to Owen Owen's present inadequate returns, the acquisition would necessarily involve some short-term dilution of Clayform's earnings per share. But it was confident Owen Owen could, in due course, make a significant contribution to the enlarged group."

The directors said the sale of the leasing subsidiary during the year gave rise to a write-back of deferred tax, which after deducting the cost of disposal, amounted to £457,788. This was treated as an extraordinary item added to the group's net book worth.

Jayplant profits up and trend continues

BY MARTIN DICKSON

Despite a fall in turnover from £1.62m to £1.34m, pre-tax profits of Jayplant, plant hire contractor quoted on the USM, rose to £30,187 for the year ended May 31, 1985, compared with £30,118 previously.

The directors say that the satisfactory trend in profits continues. The depots of Sheel-beach, located at Bristol and Yaxley, Peterborough, have now been closed and the savings attributable are reflected in the group's currently improved liquidity.

The directors continue to pursue every possible means of disposal of the freehold property at Yaxley in order to further reduce group borrowings and interest charges.

Pre-tax profits for the year ended May 31, 1985, of £30,187, compared with £30,118 in 1984, were achieved on a turnover of £1.34m, against £1.62m in the same period of last year. The increase was attributable largely to a first time contribution from Paving—a U.S. manufacturer of down-market concrete products, marketed under the name "Wild Brand". This was acquired for £24m (£21m) by Jayplant in January in a cash-for-shares transaction. A nine-for-eight rights issue, the sale of £3m of convertible loan stock and a £350,000 salary for Mr Stanley Acker, Paving's principal shareholder.

The deal with Paving was largely the brainchild of Mr Whyte, who assumed in 1982 responsibility for changing the profile of the then loss-making Jayplant group, whose main interest at the time was photographic wholesaling.

Mr Whyte considered he had now fulfilled his role and leaving the board would give him more time to devote to his other interests. The 43m of his shares, which will reduce his stake from about 22 per cent to 12.3 per cent. The total will

Top board changes as Pavion profits advance to £1.7m

BY MARTIN DICKSON

PROFESSOR Roland Smith, chairman of the stores group House of Fraser, has been appointed non-executive chairman of Pavion International, the USM quoted cosmetics group. Mr Tom Whyte, the Bermuda-based financier and leading architect of the company's recent change of identity, is stepping down as deputy chairman and selling a substantial part of his shareholding.

Pavion—which was known until June as Sangers—coupled the news of these and other boardroom shuffling changes with results for the first half to August 31, showing pre-tax profits up to £1.72m on turnover of £26.7m, against £220,000 in the same period of last year on sales of £16.28m.

The increase was attributable largely to a first time contribution from Paving—a U.S. manufacturer of down-market concrete products, marketed under the name "Wild Brand". This was acquired for £24m (£21m) by Sangers in January in a cash-for-shares transaction.

Paving said Mr Whyte considered he had now fulfilled his role and leaving the board would give him more time to devote to his other interests. The 43m of his shares, which will reduce his stake from about 22 per cent to 12.3 per cent. The total will

be further reduced to under 5 per cent by the transfer of shares to certain non-beneficial trusts. Professor Smith, who became a non-executive director of Pavion in August, replaces Mr John Briggs, who will remain as a non-executive director. Mr A. S. McCready, vice president (sales) for Pavion, has also joined the board. Mr P. J. Saul, a specialist in company reconstruction, is leaving the board.

Pavion also announced that a deferred consideration for the purchase of the cosmetics company—dependent on its profits record—had become payable and Pavion's vendors would receive 8.75m shares and £2.33m in cash.

The Pavion vendors are selling 4.3m of these shares, leaving Mr Acker with 9.9 per cent of the company. Kleinwort Benson is buying both these and Mr Whyte's shares and giving Pavion's existing shareholders and loan stock holders the opportunity to buy 6.7m of them at a price of 60p a share, compared to Pavion's closing price on Friday of 74p.

The offer is one share for every nine held and five shares for every £18 of loan stock. Pavion's vendors have been given an option to buy a further 1.87m of the shares at a price of 100p any time up to November 13, 1987.

The first-half figures showed earnings per share of 0.44p, or 2.5p (0.4p) when fully diluted by loan stock conversion. Professor Smith said the cosmetics business had exceeded expectations and continued to grow through the acquisition of new customers. Sangers Photo-graphs had suffered a very difficult trading period, largely due to the poor British summer.

Scottish Metro down slightly

Scottish Metropolitan Property, which holds properties for investment, achieved slightly lower taxable profits for the year ended August 15 1985 of £8.73m, compared with £8.77m. Gross rents receivable were over £1m higher at £8.73m against £7.88m.

After tax of £2.48m (£2.77m) earnings per 20p share are given as 4.38p (4.13p) while the final dividend is lifted to 2.3p (2.15p)

taking the total payment to 4p compared with 3.75p. Net asset value per share was 112p at the year end, against 110p.

Pre-tax figures were after higher interest payable of £1.16m, compared with £831,511, and included income, down from £1.05m to £577,524. The allocation to the staff share ownership scheme amounted to £12,894 (£21,865), while income from the

related company was £26,420, against £25,714.

The directors say the sale of the leasing subsidiary during the year gave rise to a write-back of deferred tax, which after deducting the cost of disposal, amounted to £457,788. This was treated as an extraordinary item added to the group's net book worth.

FT Share Information

The following securities have been added to the Share Information Service: Ericsson (L.M.) Telefonaktiebolaget (Section: Electronics) Israel (Jack L.) (Food, Groceries etc.)

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Shandwick plc

(Incorporated in England under the Companies Act 1985, Registered Number 1952992)

Shandwick plc is the holding company of a group of three operating subsidiaries based in London which together constitute the third largest public relations group owned and operating in the United Kingdom. Shandwick invoiced more than 150 different clients in respect of the year to July 1985—these clients cover a broad range from consumer goods manufacturers and industrial companies to financial institutions and professional bodies.

Authorised	Issued and being
£250,000	issued fully paid
ordinary shares of 2p each	£84,800

In connection with the placing of 1,200,000 ordinary shares of 2p each at 175p per share by Morgan Grenfell & Co. Limited, application has been made to the Council of The Stock Exchange for the grant of permission to deal in the whole of the issued share capital of Shandwick plc in the Unlisted Securities Market. A proportion of the shares being placed will be made available to the public through the market during business hours today. It is emphasised that no application has been made for these securities to be admitted to listing.

Particulars relating to the company are available in the Extel Unlisted Securities Market Service and copies of the Prospectus may be obtained during normal business hours (Saturdays and public holidays excepted) up to and including 31 October, 1985 from:

MORGAN GRENFELL & CO. LIMITED
New Issue Department
21 Austin Friars
London EC2N 2HB

ROWE & PITMAN
1 Finsbury Avenue
London EC2M 2PA

21st October 1985

FINANCIAL TIMES STOCK INDICES

	Oct 18	Oct 17	Oct 16	Oct 15	Oct 14	Oct 13	Oct 12	Oct 11	1985 High	1985 Low	Since Completion High	Since Completion Low
Government Secs.	84.57	84.33	84.20	84.20	84.16	84.14	84.07	84.08	84.07	78.08	127.4	49.18
Fixed Interest	90.28	90.23	90.06	90.06	90.01	90.09	90.28	90.28	90.28	82.17	150.4	50.53
Ordinary	1050.9	1043.3	1034.9	1025.9	1028.8	1027.5	1028.0	1028.0	1028.0	911.0	1050.9	49.4
Gold Mines	282.5	284.8	285.1	289.6	294.6	291.4	286.0	286.0	286.0	280.1	784.7	43.5
FT-Act All Share	662.75	655.81	645.86	643.00	643.71	648.76	651.88	652.78	651.88	602.78	61.98	
FT-SE100	1341.8	1336.7	1326.2	1320.9	1322.1	1328.2	1341.2	1320.1	1341.2	1248.4	986.0	

LADBROKE INDEX
1,047,101 (+14)
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Ealing Electro Optics offering 57% at 95p

BY LUCY KELLAWAY

The prospectus is published today for an offer for sale of shares in Ealing Electro Optics, which is being brought to the USM by Ealing Electro Optics Ltd. The company, which makes optical and electro optical equipment is valued at the 95p offer price at £9.5m.

The offer represents about 57 per cent of the equity, and will raise a total of £5.5m of which about £2.6m will be new money for the company.

Ealing Electro Optics was founded in the 1960s as a manufacturer of microscopes. In 1968 it was acquired by the Ealing Corporation, a privately-owned U.S. company which, following the offer, will own 43 per cent of the shares.

The company, which employs 171 people, designs, makes and markets a wide range of optical equipment mainly for research and industrial use in the U.S. and the UK. Prices range from about £20 to about £65,000, and about two-thirds of sales by value are manufactured by the group in Watford.

Over the past five years, turnover has grown steadily from £2.6m in 1980 to £5.4m in 1984. After losses in the first two years, profits reached £208,000 in 1983. Although last year they were slightly lower at £185,000, the company is forecasting profits for the current year of £1.2m, on which basis the shares are being offered on a price-earnings multiple of 10. The dividend yield is 3.3 per cent.

Application lists open on October 24 and dealings are expected to start on October 31.

comment

Ealing Electro-Optics is a curious mixture of high — and low — technology. It operates in the decidedly high-tech area where optics and electronics meet, and it brings out leading-edge products, of which Vidiscop is an important example. Yet the company is heavily dependent on its catalogue for the bulk of its sales, and many of its products change very little from one year to the next. It emphasises development rather than research and its budget for this is relatively small. And with a history of more than 100 years it is not the sort of business that is about to double (or halve) overnight. This sounds as if it enjoys the best of both worlds in a market that is expanding at about 20 per cent a year, it has the stability that some of the sector's younger and more research-oriented companies lack. However, the track is patchy at best, and requires some lengthy explanations. Luckily, such is the company's reputation that its young team of MBAs were not brought in until 1981, when they turned the company round quickly. Moreover, the downturn last year reflects mainly the buoyancy of the previous year and should not cause undue concern. Modestly priced on a prospective p/e of 10.

US\$250,000,000
SECURITY PACIFIC CORPORATION
Floating Rate Subordinated Capital Notes due 1997

Share Stakes

CHANGES in company share stakes announced over the past week include:

Astra Industrial Group—Director Mr W. M. Clegg, on September 25 purchased 75,000 ordinary shares at 71p.

Associated Dairies Group—Director Mr D. Drew acquired 17,777 ordinary shares on September 25 under the company's executive share option scheme at 58.063p and now holds 69,372 shares (0.0061 per cent).

Director Mr D. Blane disposed of 50,000 ordinary for himself and 50,000 ordinary for his wife at 140p and he now holds 27,017 shares and his wife 25,950 shares.

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8 Lovat Lane London EC3R 8BP Telephone 01-421 1212

Over-the-Counter Market

Capitalisation	Company	Price	Change	Gross Yield	P/E	Fully Paid
4,475	Ass. Bnt. Ind. Ord.	131	-	8.5	5.0	7.3
1,125	Ass. Bnt. Ind. Ord.	10.0	-	10.0	7.3	-
3,242	Alps Group	56	+1	6.4	11.4	9.3
1,125	Armitage and Rhodes	45	-	4.3	9.5	5.8
48,889	Barton Hill	67	-	4.0	2.5	21.0
3,135	Bay Technologies	57	-	3.9	6.8	7.0
543	CCCL Ordinary	158	-	12.0	7.7	3.8
1,300	CCCL Type Conv. Pt.	106	-	12.0	7.7	3.8
1,280	Carbonium Ord.	128	-	4.8	3.9	6.2
644	Carbonium 7.5p Pt.	92	-	10.7	11.6	-
4,070	Deborah Services	624	-	7.0	5.3	7.0
42,091	Frank Horsell	850	-	1.4	0.2	15.3
3,024	Frank Horsell Pr. Ord.	829	-	11.8	2.2	15.3
1,458	Frederick Parkes	79	-	-	-	-
1,787	Ind. Precision Castings	44	+3	3.0	6.8	11.8
16,125	Ind. Precision Castings	16	-	7.9	14.6	21.5
5,512	Jackson Group	106	-	2.0	5.8	6.2
34,344	Jama Burrough	252	-	14.0	6.0	7.9
3,085	Jama Burrough Sp. Pt.	67	-	5.0	5.7	6.9
3,240	Lingaphone Ord.	190	-	15.0	16.7	6.6
18,365	Lingaphone 10.5p Pt.	570	-	6.9	1.2	24.9
808	Robert Jenkin	70	-	-	-	10.3
1,200	Scrutans	68	-	5.0	7.4	3.4
1,550	Trevan Holdings	820	-	4.3	1.3	18.2
14,101	Uniclock Holdings	110	-	2.1	6.4	8.5
4,714	Walter Alexander	202	-	17.4	8.6	5.7

Prices and details of services now available on Prostat, page 48148

RECENT ISSUES

EQUITIES

Issue price	Amount	Latest Price	1985		Stock	Change	+ or -	New Div.	Total
			High	Low					
95	7 1/2	103	97		AME Ind. Sp.	97	-	103.25	5.0
100	100	91	7	117	Barclay Prd. Ord.	91	-	117.0	26.0
100	100	121	146		CC. Westons	121	-	121.0	0.0
100	100	5	111	105	Colson Ind. Sp.	95	+8	103.0	8.0
100	100	6	111	135	Colson Ind. Sp.	120	-	130.0	10.0
100	100	8	111	135	Colson Ind. Sp.	91	+8	91.0	0.0
100	100	1	111	70	Colson Ind. Sp.	70	-	70.0	0.0
100	100	30	10	80	Colson Ind. Sp.	80	-	80.0	0.0
100	100	3	111	85	Colson Ind. Sp.	85	-	85.0	0.0
100	100	50	137	185	Colson Ind. Sp.	185	-	185.0	0.0
100	100	3	111	95	Colson Ind. Sp.	95	-	95.0	0.0
100	100	1	111	70	Colson Ind. Sp.	70	-	70.0	0.0
100	100	1	111	104	Colson Ind. Sp.	104	-	104.0	0.0
100	100	30	10	80	Colson Ind. Sp.	80	-	80.0	0.0
100	100	3	111	85	Colson Ind. Sp.	85	-	85.0	0.0
100	100	50	137	185	Colson Ind. Sp.	185	-	185.0	0.0
100	100	3	111	95	Colson Ind. Sp.	95	-	95.0	0.0
100	100	1	111	70	Colson Ind. Sp.	70	-	70.0	0.0
100	100	1	111	104	Colson Ind. Sp.	104	-	104.0	0.0
100	100	30	10	80	Colson Ind. Sp.	80	-	80.0	0.0
100	100	3	111	85	Colson Ind. Sp.	85	-	85.0	0.0
100	100	50	137	185	Colson Ind. Sp.	185	-	185.0	0.0
100	100	3	111	95	Colson Ind. Sp.	95	-	95.0	0.0
100	100	1	111	70	Colson Ind. Sp.	70	-	70.0	0.0
100	100	1	111	104	Colson Ind. Sp.	104	-	104.0	0.0
100	100	30	10	80	Colson Ind. Sp.	80	-	80.0	0.0
100	100	3	111	85	Colson Ind. Sp.	85	-	85.0	0.0
100	100	50	137	185	Colson Ind. Sp.	185	-	185.0	0.0
100	100	3	111	95	Colson Ind. Sp.	95	-	95.0	0.0
100	100	1	111	70	Colson Ind. Sp.	70	-	70.0	0.0
100	100	1	111	104	Colson Ind. Sp.	104	-	104.0	0.0
100	100	30	10	80	Colson Ind. Sp.	80	-	80.0	0.0
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100	100	1	111	70	Colson Ind. Sp.	70	-	70.0	0.0
100	100	1	111	104	Colson Ind. Sp.	104	-	104.0	0.0
100	100	30	10	80	Colson Ind. Sp.	80	-	80.0	0.0
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100	100	1	111	70	Colson Ind. Sp.	70	-	70.0	0.0
100	100	1	111	104	Colson Ind. Sp.	104	-	104.0	0.0
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Journal of Management Studies, 20(6), 791-806.

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INTERNATIONAL APPOINTMENTS

Hebbering makes move from Horten to Karstadt

By RUPERT CORNWELL IN BONN

HERR BERND HEBBERING, the 44-year-old chief executive of Horten AG, the West German retail chain, is moving across to Karstadt, a move which will significantly strengthen the top management of Karstadt, the troubled store group, which is the largest in West Germany.

After several weeks of speculation, confirmation came from Karstadt last week that Herr Hebbering, who is widely credited with having led the recovery at Horten, the German retailing subsidiary of Britain's BAT concern, will be making the short trip from Düsseldorf to Essen, where Karstadt is headquartered.

Herr Hebbering's job, which will be ratified by the Karstadt supervisory board next Monday, is as deputy chief executive, flanking Herr Walter Deuss, 51, the current chairman of Karstadt's managing board.

His appointment means a

return after a 12-year interval to Karstadt, where the mood is anything but the cheerful one which marked the boom years of the early 1970s. Thanks to difficulties of the Neckermann flat retail sales in West Germany, and the enduring difficulties of the Neckermann mail order subsidiary, Karstadt group profits plummeted to DM 23.9m (\$8m) in 1984, from DM 90.4m the year before. In the first six months of this year sales slipped 4 per cent, to DM 4.05bn.

All this, not surprisingly, has led to speculation that Herr Hebbering, with his reputation as a determined and effective cost-cutter, may be poised to take over the reins from Herr Deuss, should Karstadt's fortunes not show an improvement soon.

For the time being, Karstadt is saying only that Herr Hebbering will be in charge of textile purchasing and "other stock and sales-related

assignments." But these could well include — apart from Neckermann — the problem of NOR Touristik, Karstadt's travel agency division, which last month was refused permission by the Federal Cartel Office to merge with its opposite number at Kaufhof, the second largest German store concern.

In the meantime, Herr Deuss is under pressure from his shareholders to straighten things out — as an angry annual meeting in Essen last July showed all too clearly. Between 1977 and 1984, Neckermann piled up losses of DM 460m, and Herr Deuss has provided no prediction of when the company might return to the black.

Instead he has promised, and set in motion, a radical overhaul of Karstadt's operation, aimed at sprucing up its somewhat rusty image, and rationalising its sales lines.

Lead job at O&Y for Cohen

By Bernard Simon in Toronto

MR MARSHALL COHEN, until recently the most senior civil servant in Canada's Department of Finance, has been appointed president and chief operating officer of Olympia and York, the Toronto-based property development group.

O and Y Enterprises has been formed as a holding company overseeing the energy group Gulf Canada, which O and Y acquired two months ago. In a reorganisation subsequent to the takeover, Gulf bought the controlling interest in the newspaper and forest products company Abitibi-Price previously held directly by O and Y. O and Y Enterprises controls assets of around C\$500m (\$355.5bn).

Mr Cohen, aged 50, was one of Ottawa's most respected and influential civil servants during his three-year tenure as Deputy Minister of Finance and, previously as Deputy Minister of Energy. He practised as a tax lawyer in Toronto before joining the Civil Service in 1970.

He gave a rare interview to a Toronto newspaper this week, stressing that he played no part as Deputy Minister of Finance in Government decisions relating to O and Y's acquisition of Gulf from Chevron Corporation of San Francisco. The Government involvement was a controversial tax ruling in favour of Gulf Canada.

Mr Cohen said he had turned away approaches from some of Canada's large banks, preferring to work for Y because "I wanted a more entrepreneurial experience." O and Y is a private company controlled by the Reichman family.

Burroughs NZ post

By Dai Hayward in Wellington

MR BRIAN CLARK has been appointed general manager of Burroughs New Zealand, the country's largest U.S. business equipment concern.

For the past two years, Mr Clark has been in Burroughs' headquarters at Detroit, responsible for the Americas/Pacific region. A New Zealander, he has been with the company for 10 years.

Promotions at ITT Europe

DR RONALD E. CASEY and Mr Michael F. Gambello have been elected vice-presidents of ITT Europe, the offshoot of the diversified U.S. telecommunications group.

Dr Casey retains his present post as director personnel, ITT Europe, which he has held since 1970. He joined ITT in the personnel department in the New York headquarters in 1964.

Mr Gambello has been director of industrial and employee relations, ITT Europe, since 1975. He held various staff positions in personnel and industrial relations in the New York headquarters, responsible for Latin America and ITT divisions in North America.

COLUMBIA PICTURES Industries named Mr Peter S. Sealey, the former marketing executive of its parent, Coca-Cola Company, as president of the movie studio's U.S. marketing and distribution group, reports AP-DJ from New York.

Mr Sealey had transferred to Columbia from his post as manager of Coca-Cola's worldwide marketing operations soon after the soft-drink giant acquired the movie studio in 1982.

Clarke goes ahead in reshuffle at PG&E

By WILLIAM HALL IN NEW YORK

MR RICHARD A. CLARKE is to take over as chairman and chief executive of Pacific Gas and Electric (PG&E), as part of a major management reshuffle of the top of America's biggest gas and electric utility.

Mr Clarke, a 55-year-old lawyer, will succeed Mr Frederick W. Mielke, the present chairman, who will retire at the end of April. This appointment is the most important of several management changes announced by the San Francisco-based utility last week.

Mr Barton W. Shackleford, the company's president, retires at the end of this month and Mr Clarke will temporarily take that job, until he assumes the chief executive's role next spring, at which time he will hand over to Mr George A. Maneatis, aged 58, who is currently executive vice president for facilities and resources development.

The third member of the new management team will be Mr Stanley T. Skinner, aged 48, who will become vice chairman on May 1. Mr Skinner is currently chief financial

officer of PG and E.

Mr Clarke, a native of San Francisco, joined PG and E's law department in 1955. After leaving the company to practice law privately he rejoined the utility in 1969, and became assistant general counsel in 1974. Since 1982, he has been general manager of PG and E's utility operations, and has had overall responsibility for supplying 3.7m electricity customers and 3m natural gas customers.

Mr Maneatis joined the company in 1953, after graduating in electrical engineering at Stanford University. Mr Skinner, an economics graduate who hails from Arkansas, joined the company in 1964. He was appointed treasurer ten years later.

In the 12 months to end September PG and E had sales of \$8.5bn and net income of \$1.0bn. The group earned \$2.71 per share and paid dividends of \$1.78 per share. Its main challenge in the coming years is to win sufficient rate increases to cover the costs of its \$5.6bn Diablo Canyon nuclear power project.

THIS NOTICE DOES NOT CONSTITUTE AN OFFER FOR SALE AND THE STOCKS LISTED BELOW ARE NOT AVAILABLE FOR PURCHASE DIRECT FROM THE BANK OF ENGLAND.

ISSUES OF GOVERNMENT STOCK

The Bank of England announces that Her Majesty's Treasury has created on 18th October 1985, and has issued to the Bank, additional amounts as indicated of each of the Stock listed below:

£200 million 9½ per cent. TREASURY LOAN, 1989
£400 million 9½ per cent. CONVERSION STOCK 2005

The price paid by the Bank on issue was in each case the middle market closing price of the relevant Stock on 18th October 1985 as certified by the Government Broker.

In addition, Her Majesty's Treasury has created on 18th October 1985, and has issued to the National Debt Commissioners for public funds under their management, an additional amount of £100 million of 11 per cent Exchequer Stock, 1989.

In each case, the amount issued on 18th October 1985 represents a further tranche of the relevant Stock, ranking at the same priority with that Stock and subject to the terms and conditions of its prospectus (save as to the particulars therein which related solely to the initial sale of the Stock), and subject also to the provisions contained in the final paragraph of this notice, the current provisions for Capital Gains Tax are described below. Application has been made to the Council of the Stock Exchange for each further tranche of stock to be admitted to the Official List.

Copies of the prospectus for 9½ per cent Treasury Loan, 1989 dated 12th January 1973 and of the prospectus dated 27th April 1984 for 9½ per cent Treasury Convertible Stock, 1989 (which contained the terms of issue of 9½ per cent Conversion Stock, 2005) may be obtained at the Bank of England, New Issues, Watling Street, London EC4M 9AA. The Stocks are repayable at par, and interest is payable half-yearly, on the dates shown below:

Stock	Redemption date	Interest payment dates
9½ per cent Treasury Loan, 1989	15th January 1989	15th January
9½ per cent Conversion Stock, 2005	15th April 2005	15th April

Each further tranche of stock issued on 18th October 1985 will rank for a full six months' interest on the next interest payment date applicable to the relevant Stock. Official dealings in the Stocks on the Stock Exchange are expected to commence on Monday, 21st October 1985.

Each of the Stocks referred to in this notice is specified under paragraph 1 of Schedule 2 to the Capital Gains Tax Act 1979 as a gilt-edged security (under current legislation exempt from tax on capital gains on disposals made on or after 27th July 1986, irrespective of the period for which the Stock is held).

Government statement
Attention is drawn to the statement issued by Her Majesty's Treasury on 28th May 1985 which explained that, in the interest of the orderly conduct of fiscal policy, neither Her Majesty's Government nor the Bank of England or their respective servants or agents undertake to disclose tax charges decided on but not yet announced, even where they may specifically affect the terms on which, or the conditions under which, these further tranches of stock are issued or sold by or on behalf of the Government or the Bank; that no responsibility can therefore be accepted for any omission to make such disclosure; and that such omission shall neither render any transaction liable to be set aside nor give rise to any claim for compensation.

BANK OF ENGLAND
LONDON
18th October 1985

FT UNIT TRUST INFORMATION SERVICE

AUTHORISED UNIT TRUSTS

Abbey Unit Tr. Mgmt. Co.
24, Holborn Viaduct, London WC1N 2ET

Unit Trust	Assets	Units	Price
Abbey Bond	£100m	100,000,000	1.00
Abbey Equity	£100m	100,000,000	1.00
Abbey Income	£100m	100,000,000	1.00
Abbey Property	£100m	100,000,000	1.00
Abbey World	£100m	100,000,000	1.00

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INSURANCE, OVERSEAS & MONEY FUNDS

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Continued on Page 2

**Closing prices,
October 18**

Continued on Page 37

1. *Journal of the American Medical Association*, 1997; 278: 1039-1044.

CURRENCIES, MONEY and CAPITAL MARKETS

Rustenburg Platinum Holdings Limited

(Incorporated in the Republic of South Africa)
(Registration No. 05/23452/06)Supplementary Statement by the Chairman,
Mr. G. H. Waddell, at the Annual General Meeting
held on Friday, 18 October, 1985

I think it is proper to add to the comments that I made in my Chairman's Review on 7 August 1985, in regard to the outlook for Rustenburg's current financial year.

As a result of the Rand prices received during the first three and a half months of this current financial year, Rustenburg has earned profits substantially above those for the comparable period last year. This substantial increase in profitability is likely to continue for as long as Rustenburg receives current Rand prices and maintains its volume of sales at a level similar to that of last year.

Head and Registered Office:
Consolidated Building, Corner Fox and Harrison Streets
Johannesburg 2001
P.O. Box 590, Johannesburg 2000, South Africa
London Secretaries:
Barnato Brothers Ltd., 99, Bishopsgate, London EC2M 3XE
18 October, 1985

KANSALLS OSAKE PANKKI
(Incorporated in Finland)
US\$100,000,000
Subordinated Floating Rate
Notes due July 1997
In accordance with the terms and conditions of the notes, we hereby give notice that the next interest payment date will be January 21, 1986.
Annual interest rate for the period of October 21, 1985 to January 21, 1986 will be 8 1/4%. Interest payable will be:
US\$217.22 per coupon for US\$100,000 nominal principal amount for registered notes.
US\$217.22 per coupon for US\$100,000 denomination notes.
US\$217.22 per coupon for US\$250,000 denomination notes.
Banque Generale Du Luxembourg
Societe Anonyme
Agent Bank

**FINANCIAL TIMES
MANCHESTER
AIRPORT
SURVEY**
NOVEMBER 13, 1985
For further details, please contact:
JOHN LEVER on
061-834-9381
FINANCIAL TIMES
Europe's Business Newspaper

**Aluminium to 1990
PROSPECTS FOR RECOVERY**
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FOREIGN EXCHANGES

Banks regain initiative

BY COLIN MILLHAM

Central banks showed the firmer hand required to produce a slightly weaker dollar last week, and are probably satisfied with the outcome. Foreign exchange dealers are not convinced a fall of about 25 per cent in the dollar's value from the peak of DM 3.4510 touched in February is justified by recent events, but in the absence of evidence to the contrary the German Bundesbank seems set to achieve a rate of DM 3.60 for the U.S. currency in the very near future. The Bank of Japan also appears to be on target for a dollar value of ¥210, or a fall of about 20 per cent from the high of ¥238.15 in February.

The Japanese authorities have suggested a rate of ¥200 would be appropriate, and will be keen to make this point when the Japanese Prime Minister visits Washington this week, in the face of a strong and vocal protectionist lobby in the U.S. Central banks have no wish to see the dollar going into free fall, however, as this would create more problems than it solves. It is therefore a delicate balance between keeping the market's confidence and engineering a gradual decline in the U.S. currency.

If left to its own devices the

there was evidence the market was losing some of its fear of the central banks.

Among the U.S. economic figures published last week, August business inventories fell by the expected 0.4 per cent, but September personal income rose by only half the anticipated amount at 0.3 per cent, while consumer spending for the same month increased 1.2 per cent, slightly less than expected.

These were relatively minor

CURRENCY MOVEMENTS

Oct. 18	Bank of England: Sterling Index (Change %)	Morgan Guaranty: U.S. Dollar Index (Change %)
Sterling	90.6	-0.9
U.S. dollar	130.7	+1.7
Canadian dollar	91.1	-0.6
Australian dollar	110.8	+0.3
Belgian franc	81.1	-1.0
Dutch guilder	81.5	-0.8
French franc	151.1	+1.2
West German mark	117.9	+0.3
Swiss franc	149.6	+0.3
Yen	169.6	+0.3

Morgan Guaranty changes: average 1980-1982-100. Bank of England Index (base average 1976-100).

POUND SPOT—FORWARD AGAINST POUND

Oct. 18	Day's	Close	One month	Three months	Six months
U.S.	1.4160-1.4200	1.4200-1.4250	0.45-0.45 pm	0.45-0.45 pm	0.45-0.45 pm
Canada	1.3850-1.3900	1.3900-1.3950	0.38-0.38 pm	0.38-0.38 pm	0.38-0.38 pm
Netherlands	4.220-4.250	4.250-4.280	2-2 pm	2-2 pm	2-2 pm
Belgium	25.70-26.30	26.30-26.90	3-3 pm	3-3 pm	3-3 pm
Denmark	16.50-16.60	16.60-16.70	2-2 pm	2-2 pm	2-2 pm
France	1.277-1.285	1.285-1.295	0.28-0.28 pm	0.28-0.28 pm	0.28-0.28 pm
Germany	2.20-2.25	2.25-2.30	0.25-0.25 pm	0.25-0.25 pm	0.25-0.25 pm
Italy	1.27-1.28	1.28-1.29	0.28-0.28 pm	0.28-0.28 pm	0.28-0.28 pm
Japan	228-231	231-234	0.23-0.23 pm	0.23-0.23 pm	0.23-0.23 pm
Spain	165-168	168-171	0.17-0.17 pm	0.17-0.17 pm	0.17-0.17 pm
Sweden	3.70-3.75	3.75-3.80	0.38-0.38 pm	0.38-0.38 pm	0.38-0.38 pm
Switzerland	1.12-1.13	1.13-1.14	0.13-0.13 pm	0.13-0.13 pm	0.13-0.13 pm
Norway	11.40-11.50	11.50-11.60	0.11-0.11 pm	0.11-0.11 pm	0.11-0.11 pm
Finland	10.25-10.35	10.35-10.45	0.10-0.10 pm	0.10-0.10 pm	0.10-0.10 pm
Austria	13.25-13.35	13.35-13.45	0.13-0.13 pm	0.13-0.13 pm	0.13-0.13 pm
Belgium	3.07-3.10	3.10-3.15	0.31-0.31 pm	0.31-0.31 pm	0.31-0.31 pm

Belgian rate is for convertible francs. Financial franc 75.70-76.80. Six-month forward dollar: 2.12-2.15 pm. 12-month 3.35-3.40 pm.

market wants to buy the dollar, but the fear of intervention is an overriding factor. After the Group of Five finance ministers' meeting on September 22 the central banks succeeded in establishing a sudden fall in the value of the dollar, but there was no fresh incentive at the IMF meeting in Seoul at the beginning of this month, and by last week

factors however, with the market's attention firmly fixed on the revised third quarter U.S. gross national product figures published on Thursday. Forecasts for the quarter varied widely but growth of 3 per cent to 3.5 per cent was generally expected. Some economists were looking for a rise of up to 4 per cent, but shortly before the release it was rumoured the figure would be below the earlier Bush estimate of 2.3 per cent.

The revised figure of 3.3 per cent growth therefore seemed quite reasonable, but the central bank had already undermined the foundations of a stronger dollar by intervention on Wednesday, the day before the GNP announcement, and the market needed something more to sustain its nerve.

After threatening to break above its recent trading range on Wednesday, when the dollar fell to DM 2.6880, the central banks soon regained the initiative, pushing the U.S. currency down by over 2 pence on the week.

With the Federal Reserve taking more of a lead in the attempt at co-ordinated intervention the gradual decline in the dollar's value seems set to continue.

CURRENCY RATES

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Sterling	90.6	-0.9
U.S. dollar	130.7	+1.7
Canadian dollar	91.1	-0.6
Australian dollar	110.8	+0.3
Belgian franc	81.1	-1.0
Dutch guilder	81.5	-0.8
French franc	151.1	+1.2
West German mark	117.9	+0.3
Swiss franc	149.6	+0.3
Yen	169.6	+0.3

Morgan Guaranty changes: average 1980-1982-100. Bank of England Index (base average 1976-100).

DOLLAR SPOT—FORWARD AGAINST DOLLAR

Oct. 18	Day's	Close	One month	Three months	Six months
U.S.	1.4160-1.4200	1.4200-1.4250	0.45-0.45 pm	0.45-0.45 pm	0.45-0.45 pm
Canada	1.3850-1.3900	1.3900-1.3950	0.38-0.38 pm	0.38-0.38 pm	0.38-0.38 pm
Netherlands	4.220-4.250	4.250-4.280	2-2 pm	2-2 pm	2-2 pm
Belgium	25.70-26.30	26.30-26.90	3-3 pm	3-3 pm	3-3 pm
Denmark	16.50-16.60	16.60-16.70	2-2 pm	2-2 pm	2-2 pm
France	1.277-1.285	1.285-1.295	0.28-0.28 pm	0.28-0.28 pm	0.28-0.28 pm
Germany	2.20-2.25	2.25-2.30	0.25-0.25 pm	0.25-0.25 pm	0.25-0.25 pm
Italy	1.27-1.28	1.28-1.29	0.28-0.28 pm	0.28-0.28 pm	0.28-0.28 pm
Japan	228-231	231-234	0.23-0.23 pm	0.23-0.23 pm	0.23-0.23 pm
Spain	165-168	168-171	0.17-0.17 pm	0.17-0.17 pm	0.17-0.17 pm
Sweden	3.70-3.75	3.75-3.80	0.38-0.38 pm	0.38-0.38 pm	0.38-0.38 pm
Switzerland	1.12-1.13	1.13-1.14	0.13-0.13 pm	0.13-0.13 pm	0.13-0.13 pm
Norway	11.40-11.50	11.50-11.60	0.11-0.11 pm	0.11-0.11 pm	0.11-0.11 pm
Finland	10.25-10.35	10.35-10.45	0.10-0.10 pm	0.10-0.10 pm	0.10-0.10 pm
Austria	13.25-13.35	13.35-13.45	0.13-0.13 pm	0.13-0.13 pm	0.13-0.13 pm
Belgium	3.07-3.10	3.10-3.15	0.31-0.31 pm	0.31-0.31 pm	0.31-0.31 pm

Belgian rate is for convertible francs. Financial franc 75.70-76.80. Six-month forward dollar: 2.12-2.15 pm. 12-month 3.35-3.40 pm.

EURO-CURRENCY INTEREST RATES

Oct. 18	Short	7 days	1 month	Three months	Six months	One year
Sterling	11 1/2-11 3/4	11 1/2-11 3/4	11 1/2-11 3/4	11 1/2-11 3/4	11 1/2-11 3/4	11 1/2-11 3/4
U.S. dollar	7 1/2-7 3/4	7 1/2-7 3/4	7 1/2-7 3/4	7 1/2-7 3/4	7 1/2-7 3/4	7 1/2-7 3/4
U.S. dollar	7 1/2-7 3/4	7 1/2-7 3/4	7 1/2-7 3/4	7 1/2-7 3/4	7 1/2-7 3/4	7 1/2-7 3/4
D. Guilder	5 1/2-5 3/4	5 1/2-5 3/4	5 1/2-5 3/4	5 1/2-5 3/4	5 1/2-5 3/4	5 1/2-5 3/4
Sw. Franc	11 1/2-11 3/4	11 1/2-11 3/4	11 1/2-11 3/4	11 1/2-11 3/4	11 1/2-11 3/4	11 1/2-11 3/4
Fr. Franc	9 1/2-9 3/4	9 1/2-9 3/4	9 1/2-9 3/4	9 1/2-9 3/4	9 1/2-9 3/4	9 1/2-9 3/4
Italian Lira	12 1/2-12 3/4	12 1/2-12 3/4	12 1/2-12 3/4	12 1/2-12 3/4	12 1/2-12 3/4	12 1/2-12 3/4
B. Fr. (Finl)	8 1/2-8 3/4	8 1/2-8 3/4	8 1/2-8 3/4	8 1/2-8 3/4	8 1/2-8 3/4	8 1/2-8 3/4
B. Fr. (Den)	8 1/2-8 3/4	8 1/2-8 3/4	8 1/2-8 3/4	8 1/2-8 3/4	8 1/2-8 3/4	8 1/2-8 3/4
Yen	6 1/2-6 3/4	6 1/2-6 3/4	6 1/2-6 3/4	6 1/2-6 3/4	6 1/2-6 3/4	6 1/2-6 3/4
D. Krone	9 1/2-9 3/4	9 1/2-9 3/4	9 1/2-9 3/4	9 1/2-9 3/4	9 1/2-9 3/4	9 1/2-9 3/4
Aust. S. (Gst)	8 1/2-8 3/4	8 1/2-8 3/4	8 1/2-8 3/4	8 1/2-8 3/4	8 1/2-8 3/4	8 1/2-8 3/4

Long-term Eurodollars: two years 8 1/2-9 1/4 per cent; three years 8 1/2-9 1/4 per cent; four years 10-10 1/2 per cent; five years 10 1/2-11 1/4 per cent. Short-term rates are call U.S. dollars and Japanese yen; others two days' notice.

MONEY MARKETS

The London money market waited anxiously for the speech by Mr. Nigel Lawson, Chancellor of the Exchequer, at the Mansion House on Thursday night, but the event was allowed to pass without any very strong reaction. Mr. Lawson's statement that the Government would not hesitate to raise short-term interest rates to tighten monetary conditions would have had more immediate impact if rates were not already nearly double the rate of inflation, and if sterling had not been relegated to a more minor role in determining policy.

Sterling has grown at an annual rate of 13.5 per cent in the last six months, but the narrow monetary aggregate of notes and coin, known as M0, has grown by only 3.3 per cent in the same period, and by 4.2 per cent in the last three months. The Chancellor's forecast that the rate of inflation will be below 2 per cent next year, coupled with his intimation that interest rates will remain firm, should help to underpin sterling. It will also be seen as conforming with the spirit of the Group of Five

FINANCIAL FUTURES

Strike	Dec	Mar	June	Vol	Dec	Mar	June
90.00	1.33	1.33	1.33	—	0.00	0.00	0.00
90.50	1.33	1.33	1.33	—	0.00	0.00	0.00
91.00	0.86	0.74	0.68	—	0.10	0.44	0.77
91.50	0.62	0.46	0.46	—	0.37	0.72	1.05
92.00	0.14	0.22	0.24	—	1.00	1.00	—
92.50	0.00	0.00	—	—	1.17	—	—

Previous day's open int: Calls 2,387 Puts 2,782

LIFE EURO-DOLLAR OPTIONS

Strike	Dec	Mar	June	Vol	Dec	Mar	June
90.00	1.33	1.33	1.33	—	0.00	0.00	0.00
90.50	1.33	1.33	1.33	—	0.00	0.00	0.00
91.00	0.86	0.74	0.68	—	0.10	0.44	0.77
91.50	0.62	0.46	0.46	—	0.37	0.72	1.05
92.00	0.14	0.22	0.24	—	1.00	1.00	—
92.50	0.00	0.00	—	—	1.17	—	—

Previous day's open int: Calls 2,387 Puts 2,782

LIFE £/S OPTIONS

Strike	Dec	Mar	June	Vol	Dec	Mar	June
90.00	1.33	1.33	1.33	—	0.00	0.00	0.00
90.50	1.33	1.33	1.33	—	0.00	0.00	0.00
91.00	0.86	0.74	0.68	—	0.10	0.44	0.77
91.50	0.62	0.46	0.46	—	0.37	0.72	1.05
92.00	0.14	0.22	0.24	—	1.00	1.00	—
92.50	0.00	0.00	—	—	1.17	—	—

Previous day's open int: Calls 2,387 Puts 2,782

LONDON £/S OPTIONS

Strike	Dec	Mar	June	Vol	Dec	Mar	June
90.00	1.33	1.33	1.33	—	0.00	0.00	0.00
90.50	1.33	1.33	1.33	—	0.00	0.00	0.00
91.00	0.86	0.74	0.68	—	0.10	0.44	0.77
91.50	0.62	0.46	0.46	—	0.37	0.72	1.05
92.00	0.14	0.22	0.24	—	1.00	1.00	—
92.50	0.00	0.00	—	—	1.17	—	—

Previous day's open int: Calls 2,387 Puts 2,782

PHILADELPHIA £/S OPTIONS

Strike	Dec	Mar	June	Vol	Dec	Mar	June
90.00	1.33	1.33	1.33	—	0.00	0.00	0.00
90.50	1.33	1.33	1.33	—	0.00	0.00	0.00
91.00	0.86	0.74	0.68	—	0.10	0.44	0.77
91.50	0.62	0.46	0.46	—	0.37	0.72	1.05
92.00	0.14	0.22	0.24	—	1.00	1.00	—
92.50	0.00	0.00	—	—	1.17	—	—

Previous day's open int: Calls 2,387 Puts 2,782

10% NATIONAL SHORT GILT £100,000

Strike	Dec	Mar	June	Vol	Dec	Mar	June
90.00	1.33	1.33	1.33	—	0.00	0.00	0.00
90.50	1.33	1.33	1.33	—	0.00	0.00	0.00
91.00	0.86	0.74	0.68	—	0.10	0.44	0.77
91.50	0.62	0.46	0.46	—	0.37	0.72	1.05
92.00	0.14	0.22	0.24	—	1.00	1.00	—
92.50	0.00	0.00	—	—	1.17	—	—

Previous day's open int: Calls 2,387 Puts 2,782

U.S. TREASURY BONDS 10% 2025

FORWARD RATES AGAINST STERLING									
		Spot	1-month	3-month	6-month	12-			
Dollar		1.4275	1.4233	1.4183	1.4084	1.3			
D-Mark		3.7650	3.7425	3.7027	3.6493	3.5			
French Franc		11.4850	11.4607	11.4401	11.4462	11			